VW GAMMA V

MODEL

SERVICE MANUAL

XR-5W497RB

SERVICE MANUAL

AEP Model

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
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Notes on Chip Component Replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

FM/AM CASSETTE CAR STEREO

MICROFILM

SONY®

SERVICE NOTE

Each time the power is turned on, the security must be released before the set can be operated.

Method of Releasing the Security of the XR-5W497RB

1. Turn on the power from the power cord.
2. Wait until the LCD display changes from “SAFE” to “1000”.
3. Input “1234” with the preset buttons on the set.

Input method:

Push the preset button [1] once, button [2] twice, button [3] three times, and button [4] four times.

4. Press and hold down the [⊳⊳] or [⊳] button for two seconds.

Note : If an attempt to release the security by this method fails twice, the system is locked.
In this case, allow the set to be activated for about one hour, then turn off the power and perform the following steps again.

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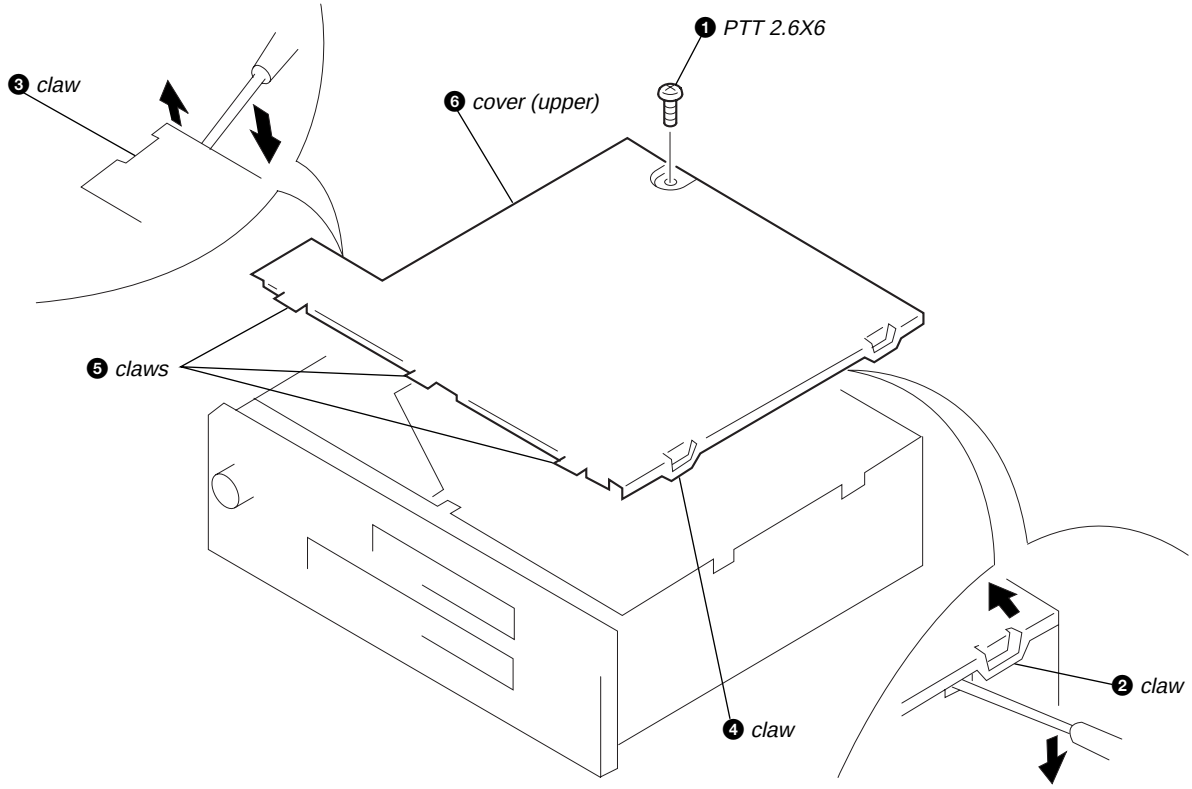
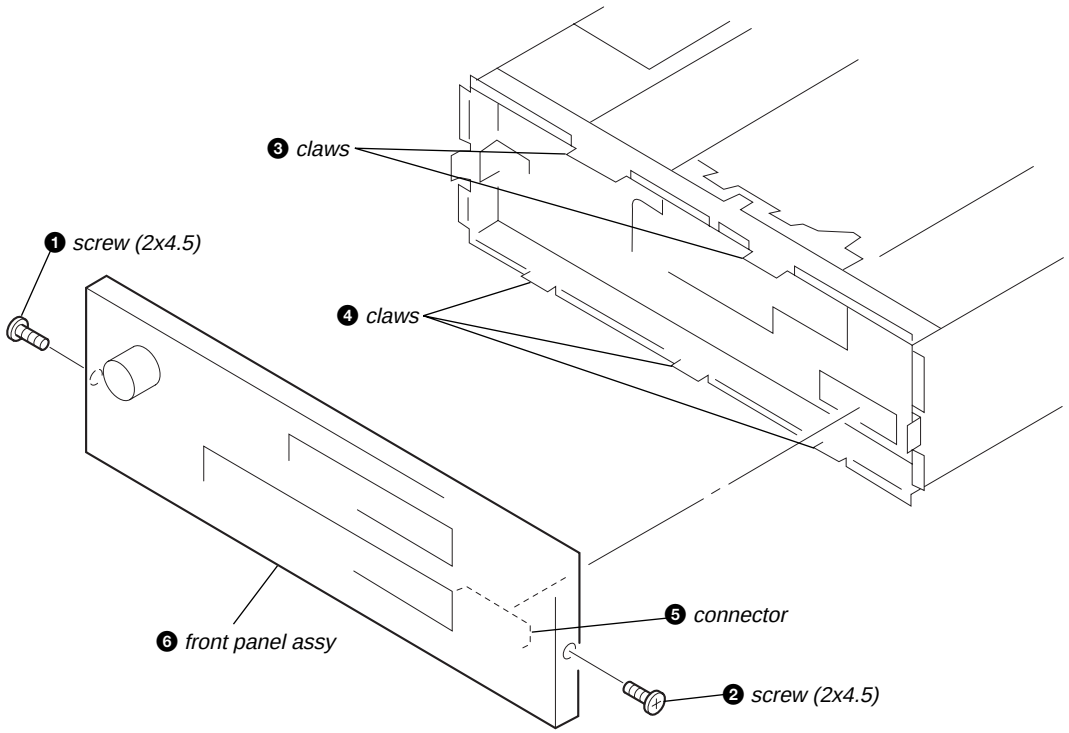
SECTION 1
DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

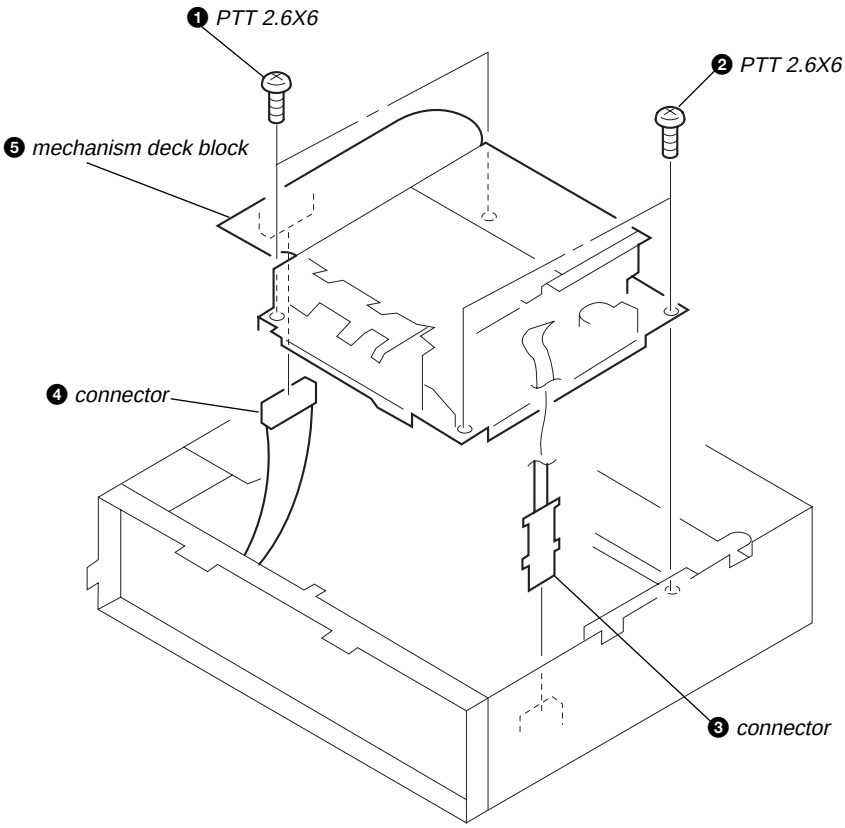
1-1. COVER (UPPER)



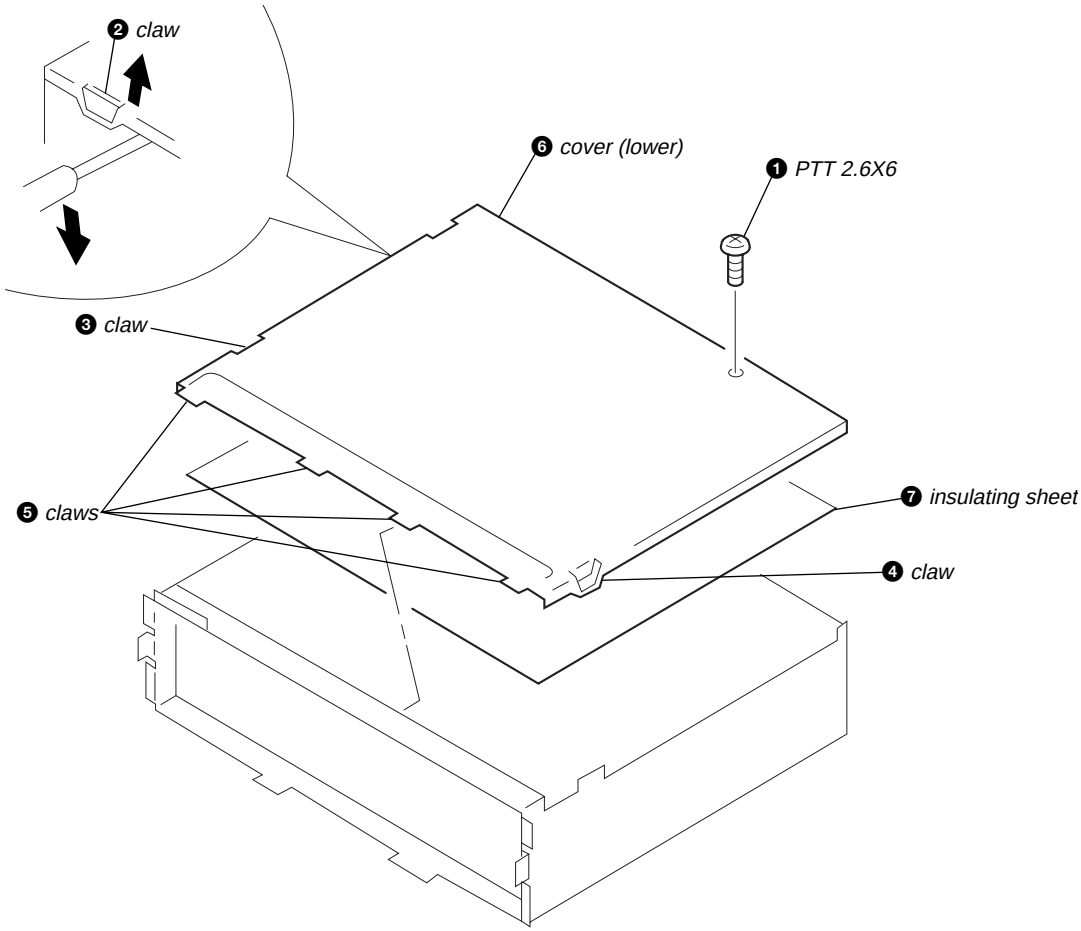
1-2. FRONT PANEL ASSY



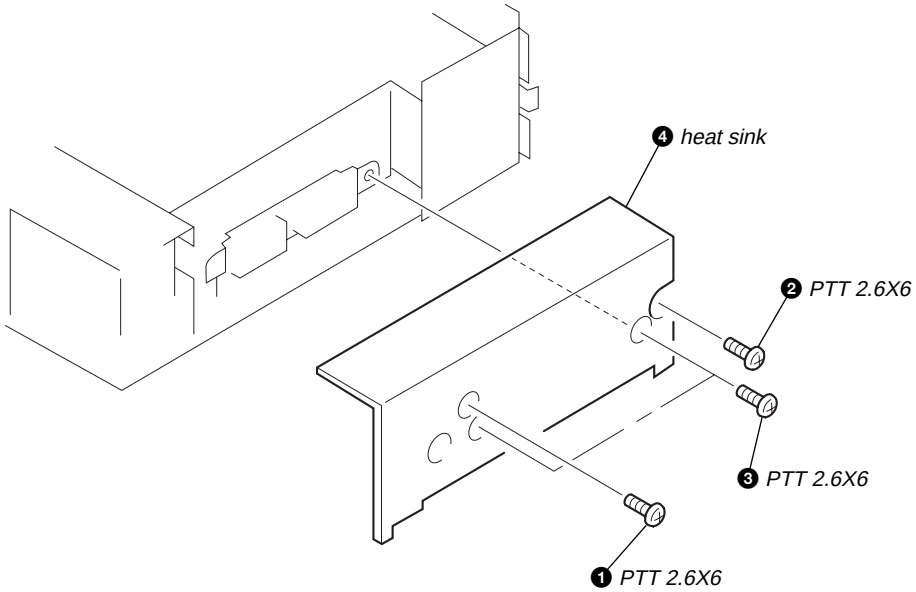
1-3. MECHANISM DECK BLOCK



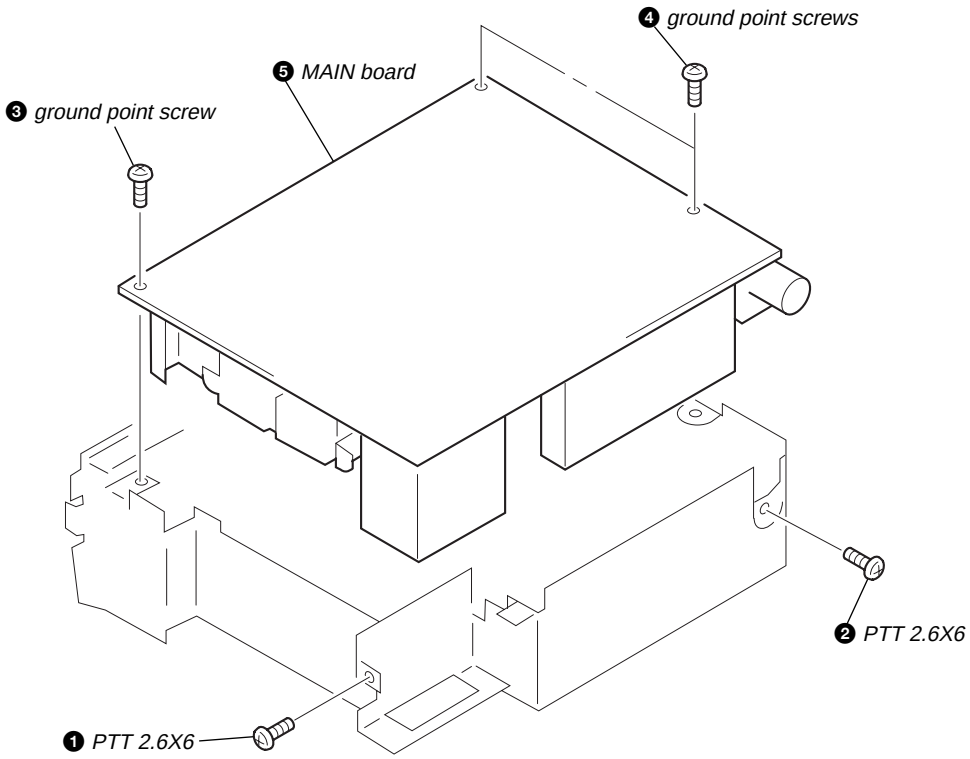
1-4. COVER (LOWER)



1-5. HEAT SINK



1-6. MAIN BOARD



SECTION 2
DIAGRAMS

2-1. IC PIN DESCRIPTIONS

• IC801 μPC78074 (SYSTEM CONTROL)

Pin No.	Pin Name	I/O	Pin Description
1	KEY-REQ	I	Key request input (L: Key request)
2 – 4	—	O	Not used in this set.
5	LCD-ON	O	LCD control output (H: LCD display ON)
6	LCD1-CE	O	LCD chip enable output (L: Chip enable ON)
7	LCD1-DATA	I/O	LCD data input/output (Input: When key data read)
8	LCD1-CLK	O	LCD clock output
9	IC	—	Ground
10	X2	—	Main clock (X' tal 4.9152 MHz)
11	X1	I	Main clock input (X' tal 4.9152 MHz)
12	VDD	—	Not used in this set.
13	XT2	—	Sub clock (Open)
14	XT1	I	Sub clock (Pulled-up to VDD.)
15	$\overline{\text{RESET}}$	I	System reset input (L: When back-up 5 V fail)
16	S-REMOTE	I	Steering remote commander interrupt input
17	B/U-DOWN	I	+B check interrupt input (L: +B normal, H: +B low or high)
18	$\overline{\text{S-CONTACT}}$	I	S-contact interrupt input (L: Interrupt request)
19	$\overline{\text{KLINE/TEL}}$	I	TEL/K-line interrupt input (L: Interrupt request)
20	$\overline{\text{ON-KEY}}$	I	"ON" key interrupt input (L: Interrupt request)
21	$\overline{\text{TIM/EJ-IN}}$	I	"TIM/EJECT" key interrupt input (L: Interrupt request)
22	LCD2-ENI	I	2nd display chip enable interrupt input (L: Interrupt request)
23	AVDD	—	Analog power supply pin (+5 V)
24	AVREF0	—	Analog reference voltage 0
25	+B-AD	I	+B voltage sense AD input (Low V: > 0.6 V, High V: > 2.2 V)
26	AD-ILL-DUTY	I	Illumi., dimmer voltage AD input (Converted PWM to voltage.)
27	AD-SP-FL-OPEN	I	Front Ieft speaker open detect input (AD)
28	AD-SP-FR-OPEN	I	Front right speaker open detect input (AD)
29	AD-SP-RL-OPEN	I	Rear left speaker open detect input (AD)
30	AD-SP-RR-OPEN	I	Rear right speaker open detect input (AD)
31	VDD-P-ON	O	Switched 5 V power control output (L: Under sleep mode)
32	P-ON	O	Main power control output (H: Power on)
33	AVSS	—	Analog ground
34	BEEP DA	O	Beep wave DA output
35	$\overline{\text{DSP-PD}}$	O	DSP power down control output (L: Power down)
36	AVREF1	—	Analog reference voltage 1
37	K-LINE (RX)	I	K-line receive data input (9600 bps)
38	K-LINE (TX)	O	K-line transmit data output (9600 bps)
39	$\overline{\text{TEL-MUTE}}$	I	Telephone mute input (L: Telephone mute request)
40	VSS	—	Ground
41	LCD2-ENO	O	2nd display chip enable line control output (H: Chip enable line activate)
42	LCD2-DATA-OUT	O	2nd display data output
43	LCD2-CLK	O	2nd display clock output
44	$\overline{\text{DSP-CS}}$	O	DSP chip select output
45	DSP-WRDY	I	DSP write ready input
46	DSP-DATA-IN	I	DSP data input (SI)
47	DSP-DATA-OUT	O	DSP data output (SO)
48	DSP-SCLK	O	DSP data clock output
49	DSP-DRDY	I	DSP data ready input
50	DSP-WRQ	O	DSP write request output
51	$\overline{\text{DSP-RST}}$	O	DSP reset output (L: Reset & power down)
52	EV-DATA-R	O	Electric volume data output (Rear)
53	EV-CLK	O	Electric volume clock output

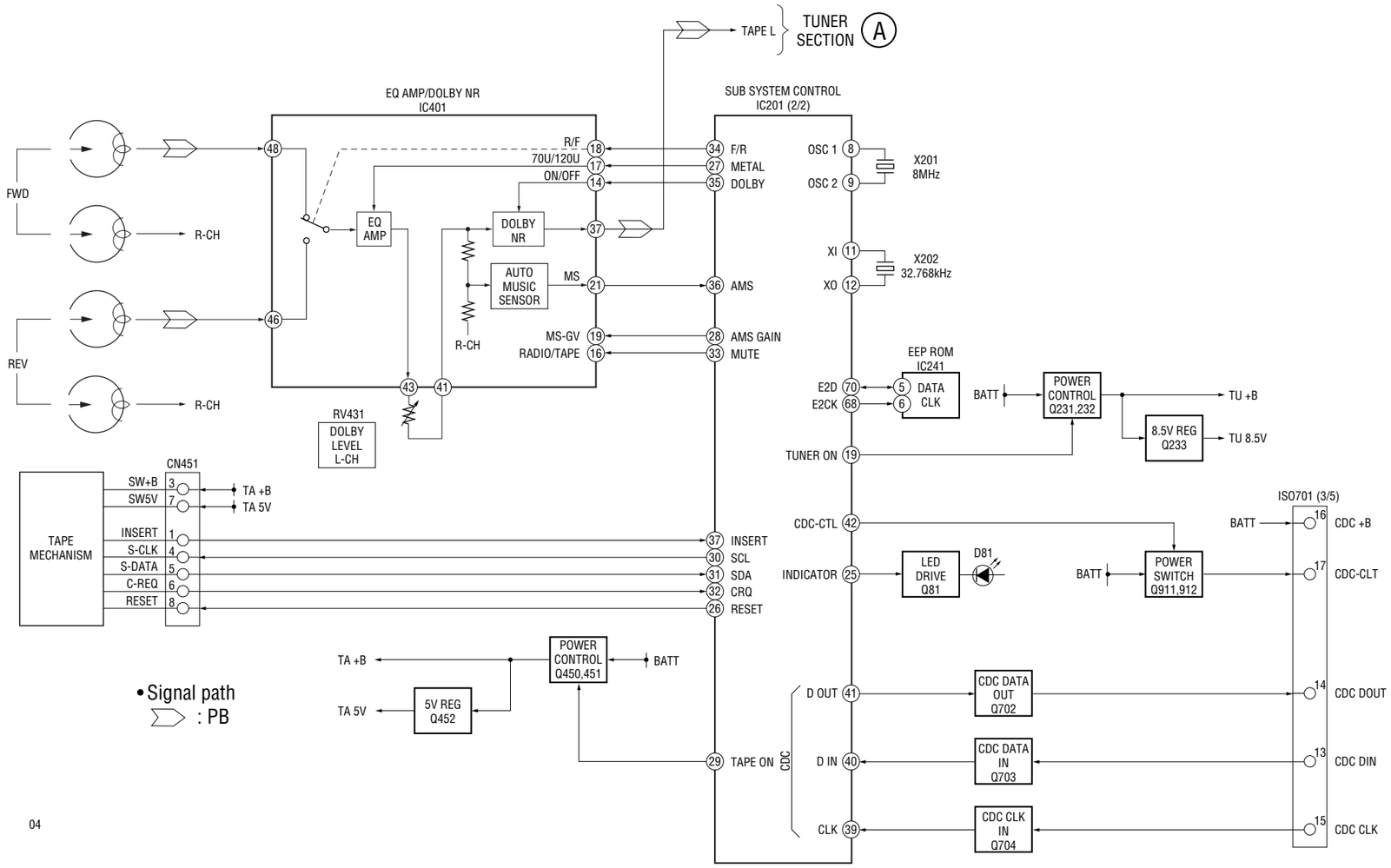
Pin No.	Pin Name	I/O	Pin Description
54	EV-DATA-F	O	Electric volume data output (Front)
55	VOL-CE	O	Electric volume chip enable output
56	AUDIO-MUTE	O	Audio mute output (H: ON, L: OFF)
57	ANT-AMP1 (OPEN)	I	Antenna diagnose input 1 (Open detect)
58	ANT-AMP2 (SHORT)	I	Antenna diagnose input 2 (Short detect)
59	SP (FRONT)-OPEN	I	Front speaker open detect input (H: Open, L: Load) (Not used in this set.)
60	SP (FRONT)-CLIP	I	Front speaker clip detect input (H: OK, L:Clip)
61	SP (FRONT)-SHORT	I	Front speaker short detect input (H: OK, L: Short)
62	SP (REAR)-OPEN	I	Rear speaker open detect input (H: Open, L: Load) (Not used in this set.)
63	SP (REAR)-CLIP	I	Rear speaker clip detect input (H: OK, L: Clip)
64	SP (REAR)-SHORT	I	Rear speaker short detect input (H: OK, L: Short)
65	SUB-WAKE-UP	O	Sub-micon communication wake-up request output
66	SUB-CLK	O	Sub-micon communication clock output
67	SUB-DATA-IN	I	Sub-micon communication data input
68	SUB-DATA-OUT	O	Sub-micon communication data output
69	AUSEL (MAIN) 1	O	Audio select 1 (L: Tape or CD, H: AM)
70	AUSEL (MAIN) 2	O	Audio select 2 (L: Tape or AM, H: CD)
71	VSS	—	Ground
72	AUSEL (SUB) 1	O	Audio select 3 (L: AM or TEL, H: TIM)
73	AUSEL (SUB) 2	O	Audio select 4 (L: AM or TIM, H: TEL)
74	SUB-BUSY (O.D)	I	Sub-micon communication status input (L: Sub-micon standby)
75	(O.D)	—	Not used in this set.
76	EXAMP-NG (O.D)	I	External amplifier remote output line short detect (Diagnose) input (H: Short detect)
77	(O.D)	—	Not used in this set.
78	AMP-DIAG	O	Amplifier diagnose on output (H: ON)
79	AUDIO-ON	O	Amplifier power on output (H: ON)
80	EXAMP-ON	O	External amplifier on output (H: ON, L: Standby)
81	AMP-MODE	O	Amplifier mute output (H: Operating, L: Mute ON)
82	GALA-IN	I	GALA input
83	—	—	Not used in this set.
84	EJ-KEY	I	“EJECT” key input (L: ON)
85	TIM-KEY	I	“TIM” key input (L: ON)
86	TP-KEY	I	“TP” key input (L: ON)
87	—	—	Not used in this set.
88	K-LINE-MODE	O	K-line mode output (L: Normal, H: Master (For security))
89	ILLUMI-ON	O	Illumination ON output (H: ON, L: OFF)
90, 91	—	—	Not used in this set.
92	ROT-IN-A	I	Rotary encoder input 1
93	ROT-IN-B	I	Rotary encoder input 2
94 – 97	(O.D)	—	Not used in this set.
98	SAFE-HOLD-OUT	O	Safety hold output
99	SAFE-DET-IN	O	Safety detect input
100	PTEST	I	Test mode input (H: Normal mode, L: Test mode)

• IC201 MN1886426 (SUB SYSTEM CONTROL)

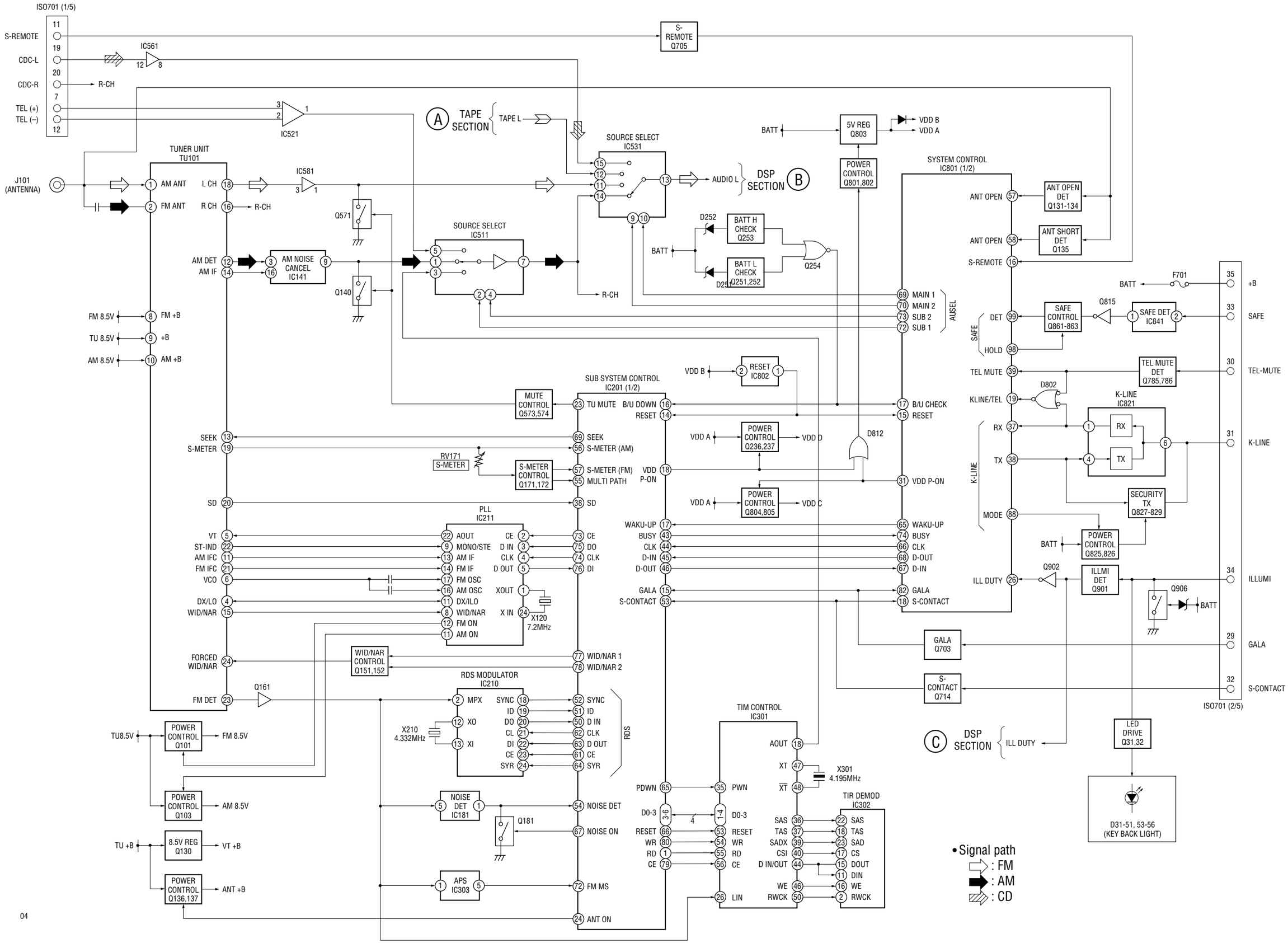
Pin No.	Pin Name	I/O	Pin Description
1	$\overline{RD}$	O	TIM read output (L: Read request)
2	—	—	Not used in this set.
3	D3	I/O	TIM D3 (Status NAR)
4	D2	I/O	TIM D2 (Status VPM)
5	D1	I/O	TIM D1 (Status RPM)
6	D0	I/O	TIM D0 (Status BSY)
7	VDD	—	Power supply
8	OSC1	I	Main X' ftal input (8 MHz)
9	OSC2	O	Main X' ftal output (8 MHz)
10	VSS	—	Ground
11	XI	I	Sub X' ftal input (32.768 kHz)
12	XO	O	Sub X' ftal output (32.768 kHz)
13	EXI	I	Connect to ground. (L: Single chip mode)
14	$\overline{RESET}$	I	System reset input
15	GALA-IN	I	GALA pulse input (IRQ2)
16	B/U-CHECK	I	+B check input (H: +B low or high) (IRQ1)
17	WAKE-UP	I	Sub-micon wake-up request input (IRQ0)
18	VDD-PON	O	Sub power control output (H: Power ON)
19	TUNER-ON	O	Tuner power control output (H: Power ON)
20 – 22	—	—	Not used in this set.
23	TU-MUTE	O	Tuner mute output (H: ON, L: OFF)
24	ANT-ON	O	Antenna power control output (H: Power ON)
25	INDICATOR	O	Indicator LED control output (H: LED ON)
26	TAPE-RESET	O	Tape reset output (L: Reset)
27	TAPE-METAL	O	Tape metal mode output (H: Metal, L: Normal)
28	TAPE-AMS-GAIN	O	Tape AMS gain output (H: Normal, L: Search)
29	TAPE-ON	O	Tape power control output (H: Power ON)
30	TAPE-SCL (O.D)	O	Tape serial clock output (< 70 kHz)
31	TAPE-SDA (O.D)	O	Tape serial data output (< 70 kHz)
32	TAPE-CRQ	I	Tape communication request input (L: Request from CC mechanism block)
33	TAPE-MUTE	O	Tape mute output (H: ON)
34	TAPE-F/R	O	Tape head select control output (H: Reverse, L: Forward)
35	TAPE-DOLBY	O	Tape dolby mode control output (H: Dolby ON)
36	TAPE-AMS-IN	I	Tape music sense input (H: Blank detect)
37	TAPE-INSERT	I	Tape insert switch input (H: Tape in, L: No cassette)
38	SD-IN	I	SD input (H: Station detect)
39	CDC-CLK	I	CDC clock input (Synchronus serial clock)
40	CDC-D-IN	I	CDC data input (Synchronus serial data)
41	CDC-D-OUT	I	CDC data output
42	CDC-CTL	O	CDC control output (H: CTL ON)
43	SUB-BUSY	O	Main-micon communication busy output
44	MST-CLK	I	Main-micon communication clock input
45	MST-D-IN	I	Main-micon communication data input
46	MST-D-OUT	O	Main-micon communication data output
47	VDD	—	Power supply
48	AVDD	—	Analog power supply
49	VREF+	—	Analog reference voltage +
50	RDS-DATA-IN	I	RDS data input
51	RDS-RDS-ID	I	RDS ID input
52	RDS-SYNC	I	RDS SYNC input
53	S-CONTACT	I	S-contact input (L: S-contact ON)
54	NOISE-DET	I	Radio noise detect input (AD)

Pin No.	Pin Name	I/O	Pin Description
55	MULTI-PATH	I	Multi-path sense input (AD)
56	AM-S.METER	I	AM S-meter input (AD)
57	FM-S.METER	I	FM S-meter input (AD)
58	VREF–	—	Analog reference voltage –
59	AVSS	—	Analog ground
60	VSS	—	Ground
61	RDS-CE	O	RDS chip enable output
62	RDS-CLK	O	RDS clock output
63	RDS-DATA-OUT	O	RDS data output
64	RDS-SYR	O	RDS SYR output
65	PDWN	O	TIM power down output (L: Power down)
66	$\overline{\text{RESET}}$	O	TIM reset output (L: Reset)
67	NOISE-ON	O	Noise detect control (L: Noise detect ON)
68	E2CK	O	EEPROM data clock output
69	SEEK-OUT	O	Seek control output (H: Receive, L: Seek)
70	E2D (O.D)	I/O	EEPROM data input/output
71	(O.D)	—	Not used in this set.
72	FM-MS-IN	I	FM audio detect input (H: Audio detect)
73	PLL-CE	O	PLL chip enable output
74	PLL-CLK	O	PLL clock output
75	PLL-DATA-OUT	O	PLL data output
76	PLL-DATA-IN	I	PLL data input
77	$\overline{\text{WID}}$NAR OUT2	O	WIDE/NARROW control output 2 (H: Forced wide, L: Auto mode)
78	$\overline{\text{WID}}$NAR OUT1	O	WIDE/NARROW control output 1 (H: Forced nornal, L: Auto mode)
79	CE	O	TIM chip enable output (H: Chip enable)
80	$\overline{\text{WR}}$	O	TIM write output (L: Write request)

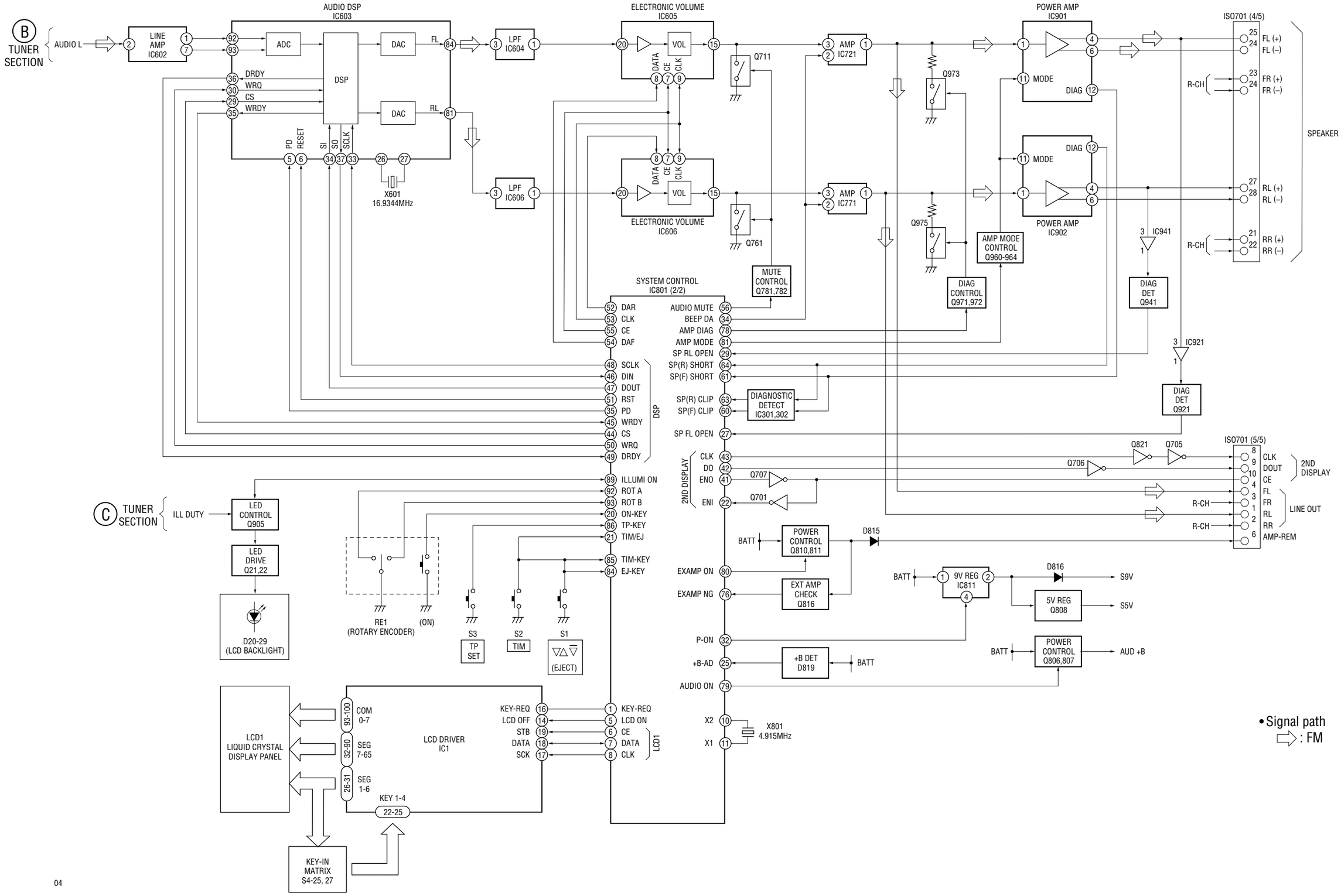
3-2. BLOCK DIAGRAM — TAPE SECTION —



2-3. BLOCK DIAGRAM — TUNER SECTION —



2-4. BLOCK DIAGRAM — DSP SECTION —



2-5. PRINTED WIRING BOARD — MAIN SECTION —

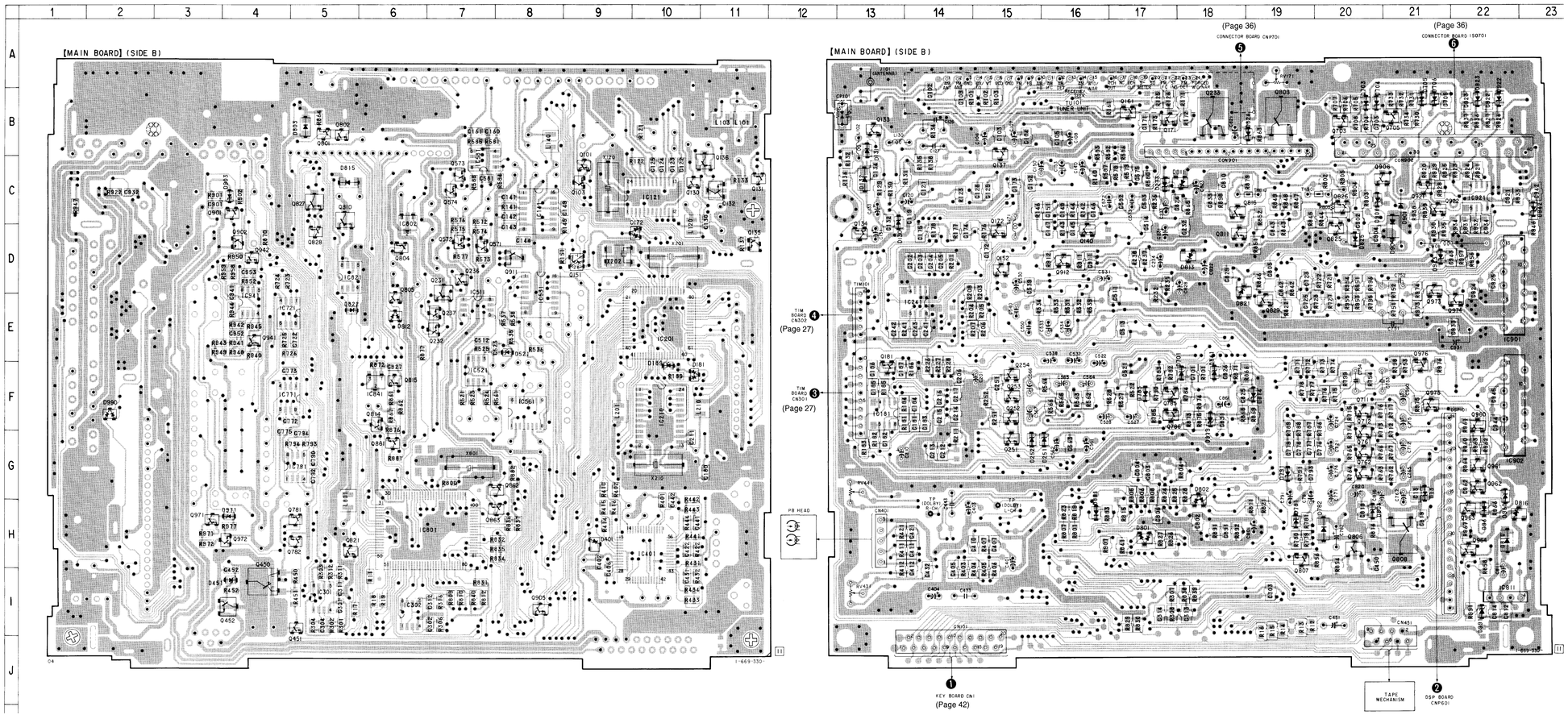
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D13	G-21	D904	D-20	Q131	C-11	Q803	B-19
D130	D-13	D906	C-20	Q132	C-11	Q804	D-6
D131	B-13	D922	B-22	Q133	B-13	Q805	D-6
D132	C-13	D923	B-22	Q134	C-13	Q806	H-20
D172	C-9	D942	C-23	Q135	D-11	Q807	H-19
D181	F-10	D943	D-21	Q136	C-11	Q808	H-21
D189	F-10	D960	H-22	Q137	C-15	Q810	C-5
D233	C-17	D961	H-22	Q140	D-16	Q811	D-18
D251	G-15	D971	H-4	Q151	D-9	Q814	F-6
D252	G-15	D990	F-2	Q152	D-15	Q815	F-6
D401	H-9	D991	I-22	Q161	B-17	Q816	C-18
D451	I-3			Q171	B-17	Q821	H-5
D521	E-8	IC121	C-10	Q172	C-15	Q825	D-20
D701	E-17	IC141	C-8	Q181	E-13	Q826	C-20
D703	B-20	IC181	F-13	Q231	D-7	Q827	C-5
D704	B-20	IC201	E-10	Q232	E-7	Q828	D-5
D705	B-21	IC210	F-10	Q233	B-18	Q829	E-19
D706	B-21	IC241	E-14	Q236	D-7	Q861	G-6
D781	H-19	IC301	I-5	Q237	E-7	Q862	G-8
D782	H-19	IC302	I-6	Q251	G-15	Q863	H-7
D783	F-17	IC401	H-10	Q252	F-15	Q901	C-3
D791	G-19	IC511	E-7	Q253	F-15	Q902	D-4
D801	H-17	IC521	F-7	Q254	F-15	Q905	I-8
D802	G-18	IC531	D-8	Q450	H-4	Q906	C-20
D803	B-5	IC561	F-8	Q451	I-5	Q911	D-8
D804	H-20	IC581	C-7	Q452	I-4	Q912	D-16
D810	H-22	IC721	E-4	Q571	D-7	Q921	C-21
D811	C-17	IC771	F-4	Q572	D-7	Q922	C-21
D812	E-6	IC791	G-5	Q573	C-7	Q941	E-4
D813	D-18	IC801	H-6	Q574	C-7	Q942	D-4
D814	F-19	IC802	C-6	Q703	B-20	Q960	F-22
D815	C-5	IC811	I-22	Q705	B-20	Q961	G-22
D816	H-22	IC821	D-5	Q711	F-20	Q962	G-22
D819	F-18	IC841	F-6	Q712	F-20	Q963	H-22
D821	E-18	IC901	E-22	Q761	G-20	Q964	H-22
D822	E-5	IC902	G-22	Q762	G-20	Q971	H-3
D825	D-20	IC921	C-22	Q781	H-5	Q972	H-4
D826	B-18	IC941	E-4	Q782	H-5	Q973	E-21
D841	E-18			Q785	F-17	Q974	E-21
D881	H-16	Q101	C-9	Q786	F-17	Q975	F-21
D901	C-21	Q103	C-9	Q801	B-5	Q976	E-21
D903	C-4	Q130	C-10	Q802	B-5		

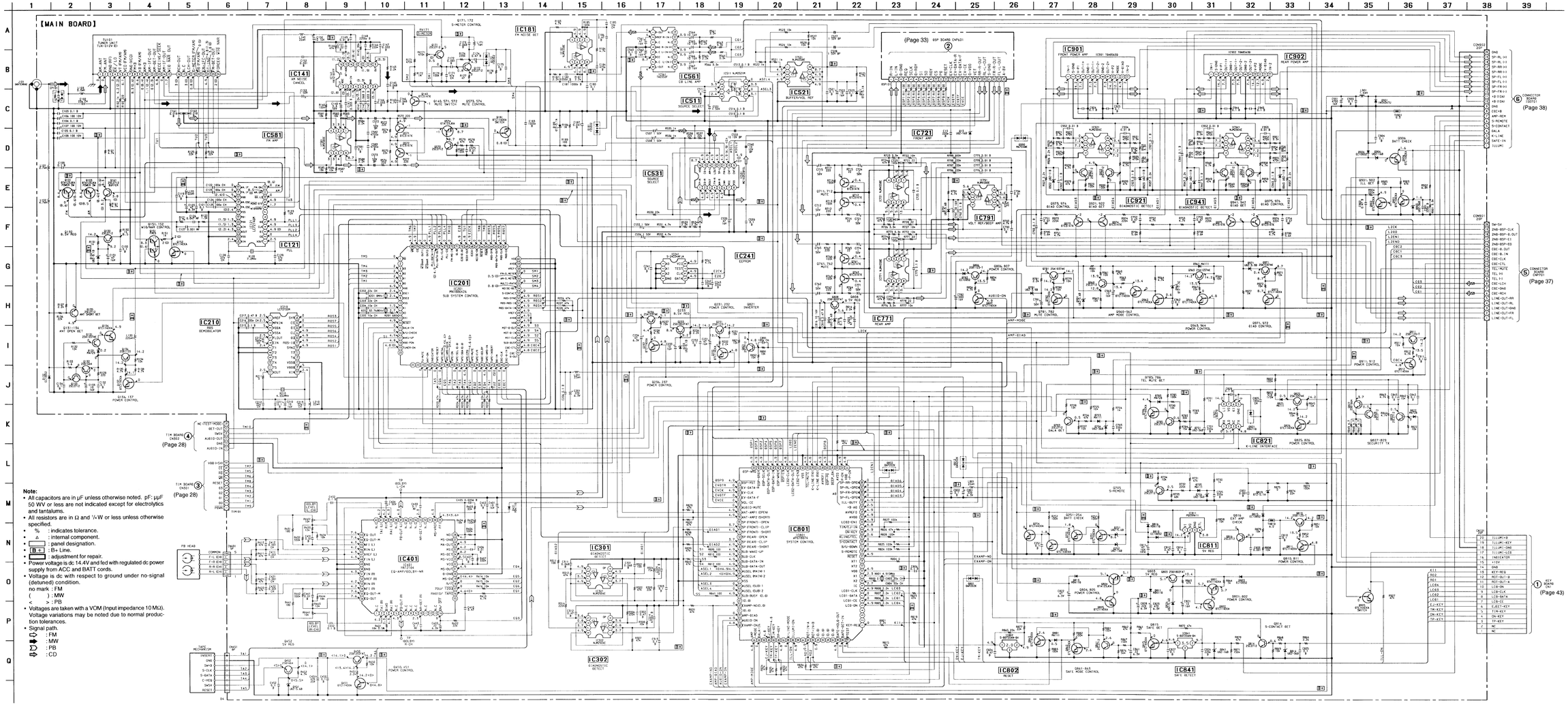
Note:

- ⟵ : parts extracted from the component side.
- ● : Through hole.
- △ : internal component.
- ▒▒ : Pattern from the side which enables seeing. (The other layer's patterns are not indicated.)

Caution:
Pattern face side: (Side B) Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A) Parts on the parts face side seen from the parts face are indicated.


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
A B C D E F G H I J
[MAIN BOARD] (SIDE B)
[MAIN BOARD] (SIDE B)
(Page 36)
CONNECTOR BOARD CNP701
(Page 36)
CONNECTOR BOARD ISP701
TIM BOARD CN302
(Page 27)
TIM BOARD CN301
(Page 27)
PB HEAD
KEY BOARD CN1
(Page 42)
TAPE MECHANISM
DSP BOARD CNP601
I-469-330-

2-6. SCHEMATIC DIAGRAM — MAIN SECTION — • Refer to page 46 for IC Block Diagrams.



Note:

- All capacitors are in µF unless otherwise noted. pF: µµF
  50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- % : indicates tolerance.
- △ : internal component.
- : panel designation.
- B+ : B+ Line.
- : adjustment for repair.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM
  ( ) : MW
  < > : PB
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  : FM
  : MW
  : PB
  : CD

2-7. PRINTED WIRING BOARDS — TIM/DSP SECTION —

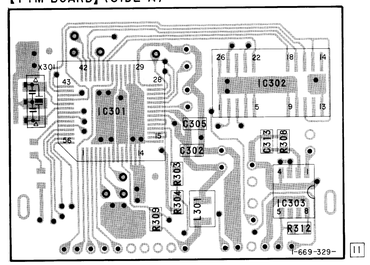
• **Semiconductor Location**

Ref. No.	Location
IC301	B-2
IC302	B-3
IC303	C-3
IC601	C-5
IC602	B-5
IC603	B-6
IC604	B-8
IC605	B-8
IC606	B-7
IC607	B-7

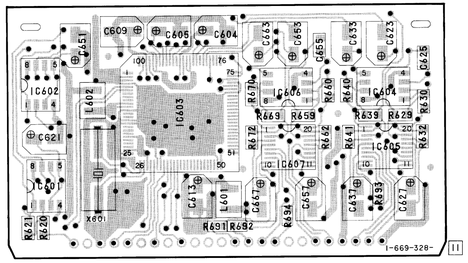
Note:
- ○——○ : parts extracted from the component side.
- ● : Through hole.
- △ : internal component.
- ▨▨▨ : Pattern from the side which enables seeing. (The other layer's patterns are not indicated.)

Caution:
Pattern face side: Parts on the pattern face side seen from the (Side B) pattern face are indicated.
Parts face side: Parts on the parts face side seen from the (Side A) parts face are indicated.

【TIM BOARD】(SIDE A)



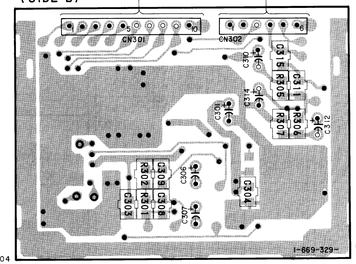
【DSP BOARD】(SIDE A)



【TIM BOARD】(SIDE B)

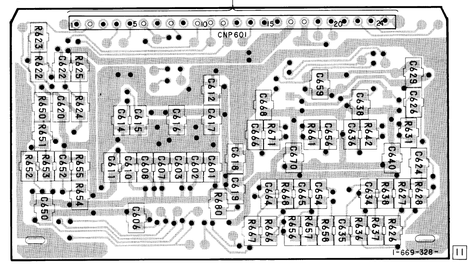
(Page 19) ❸ MAIN BOARD TIM101

(Page 19) ❹ MAIN BOARD TIM101

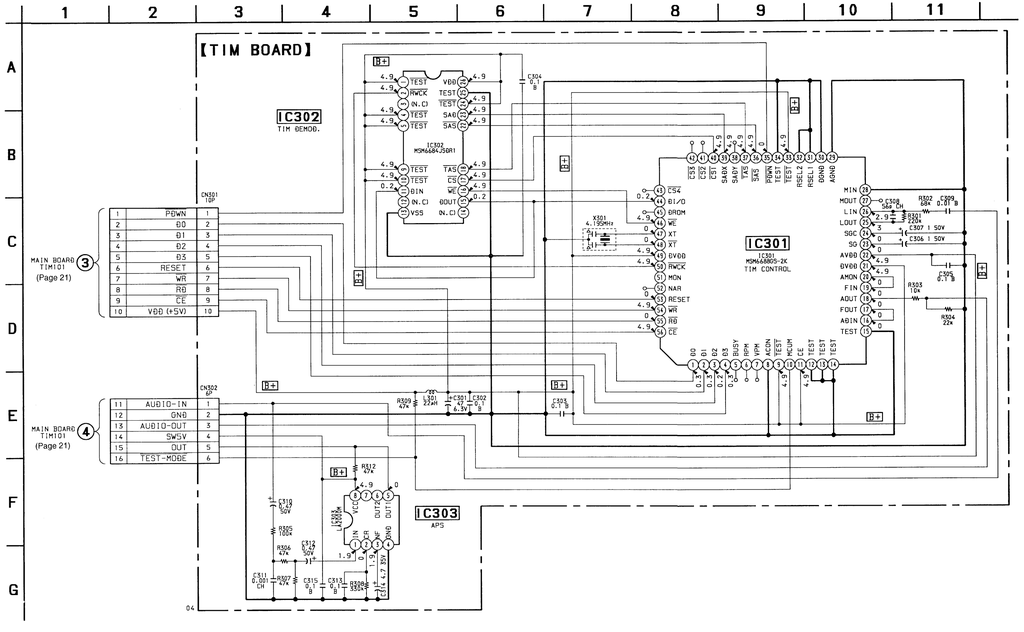


【DSP BOARD】(SIDE B)

(Page 20) ❷ MAIN BOARD DSPI01

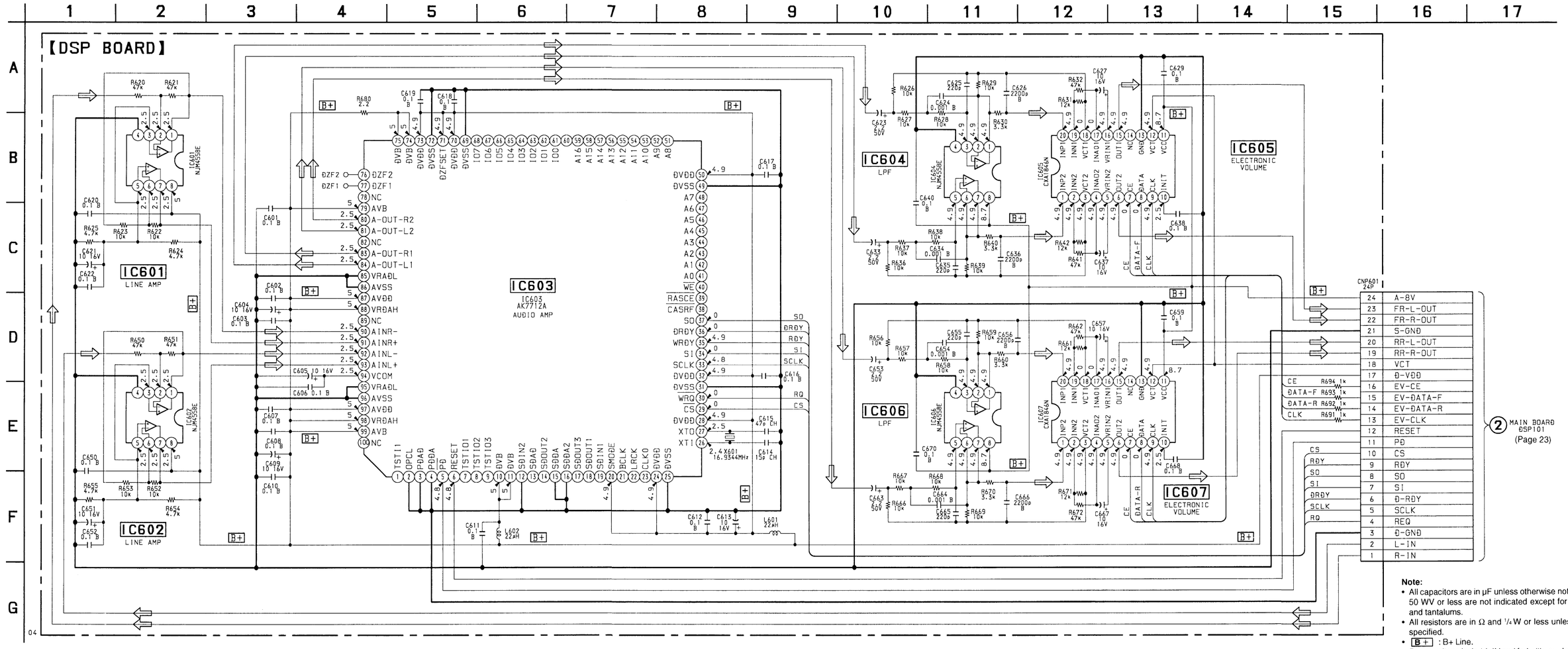


2-8. SCHEMATIC DIAGRAM — TIM SECTION — • Refer to page 48 for IC Block Diagrams.



Note:
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- B+ : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.

2-9. SCHEMATIC DIAGRAM — DSP SECTION — • Refer to page 49 for IC Block Diagrams.



Note:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- B+ : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM

2-10. PRINTED WIRING BOARD — CONNECTOR SECTION —

• **Semiconductor Location**

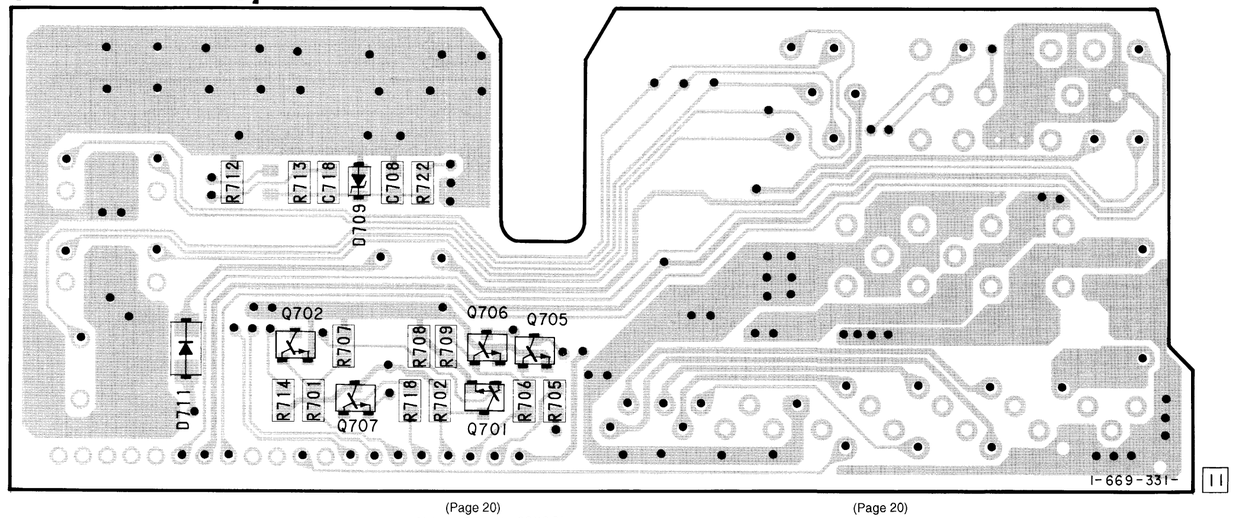
Ref. No.	Location
D704	D-2
D705	D-2
D706	D-3
D707	E-3
D708	E-3
D709	B-3
D711	C-2
D727	D-4
D728	D-4
Q701	C-3
Q702	B-2
Q703	E-2
Q704	E-2
Q705	B-3
Q706	B-3
Q707	C-3

Note:

- ○——○ : parts extracted from the component side.
- ● : Through hole.
- ▒▒▒ : Pattern from the side which enables seeing. (The other layer's patterns are not indicated.)

Caution:
Pattern face side: (Side B) Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A) Parts on the parts face side seen from the parts face are indicated.

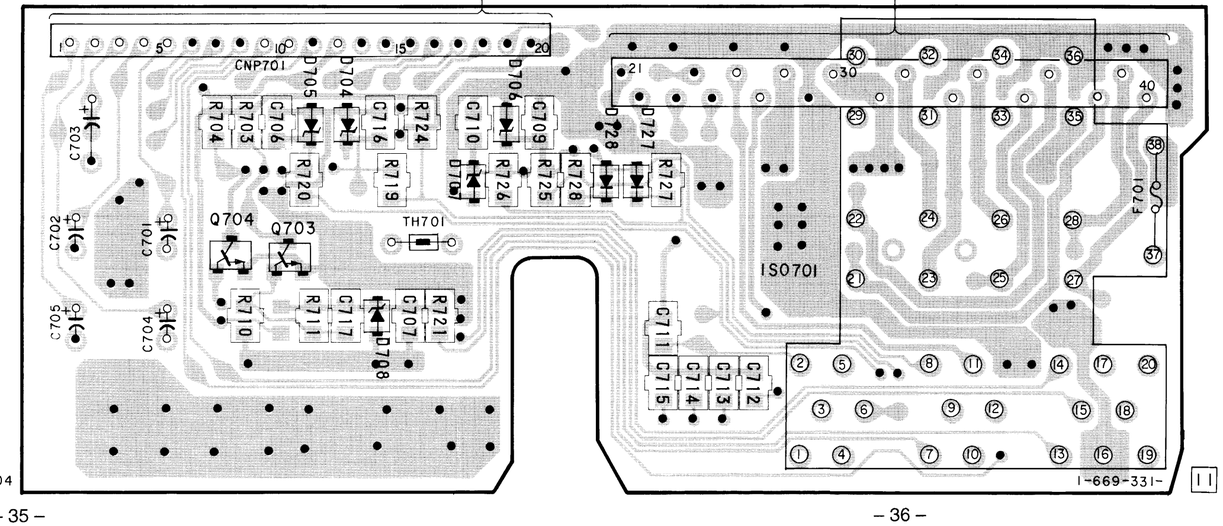
【CONNECTOR BOARD】(SIDE A)



(Page 20) MAIN BOARD CON901 ❺

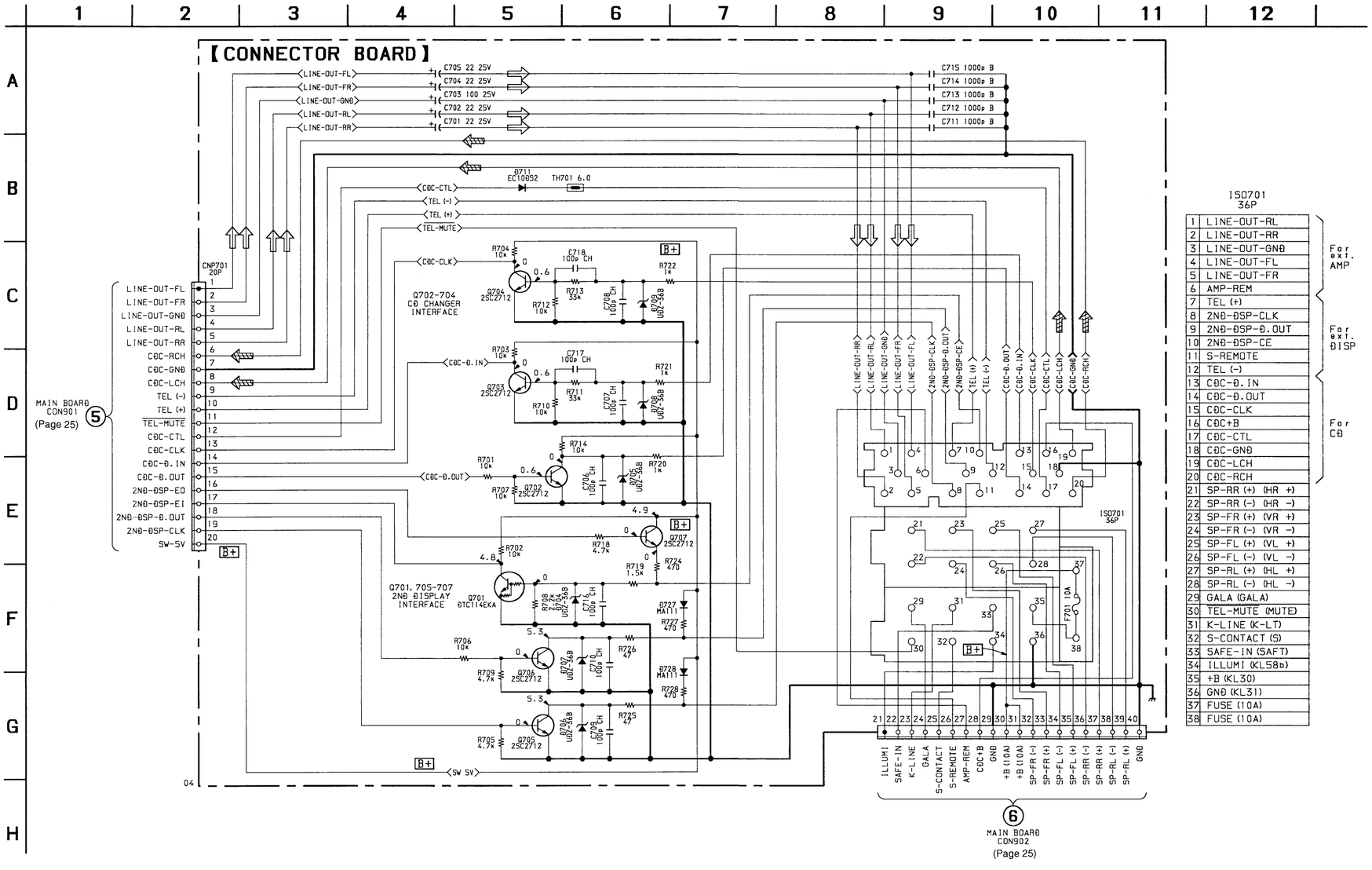
(Page 20) MAIN BOARD CON902 ❻

【CONNECTOR BOARD】(SIDE B)



04

2-11. SCHEMATIC DIAGRAM — CONNECTOR SECTION —



1	LINE-OUT-RL	For ext. AMP
2	LINE-OUT-RR	
3	LINE-OUT-GND	
4	LINE-OUT-FL	
5	LINE-OUT-FR	
6	AMP-REM	
7	TEL (+)	
8	2ND-DSP-CLK	For ext. DISP
9	2ND-DSP-D. OUT	
10	2ND-DSP-CE	
11	S-REMOTE	
12	TEL (-)	
13	CDC-D. IN	
14	CDC-D. OUT	
15	CDC-CLK	
16	CDC+B	For CD
17	CDC-CTL	
18	CDC-GND	
19	CDC-LCH	
20	CDC-RCH	
21	SP-RR (+) (HR +)	
22	SP-RR (-) (HR -)	
23	SP-FR (+) (VR +)	
24	SP-FR (-) (VR -)	
25	SP-FL (+) (VL +)	
26	SP-FL (-) (VL -)	
27	SP-RL (+) (HL +)	
28	SP-RL (-) (HL -)	
29	GALA (GALA)	
30	TEL-MUTE (MUTE)	
31	K-LINE (K-LT)	
32	S-CONTACT (S)	
33	SAFE-IN (SAFT)	
34	ILLUMI (KL58b)	
35	+B (KL30)	
36	GND (KL31)	
37	FUSE (10A)	
38	FUSE (10A)	

Note:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- B+ : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM
  ⇛ : CD

2-12. PRINTED WIRING BOARD — PANEL SECTION —

• Semiconductor Location

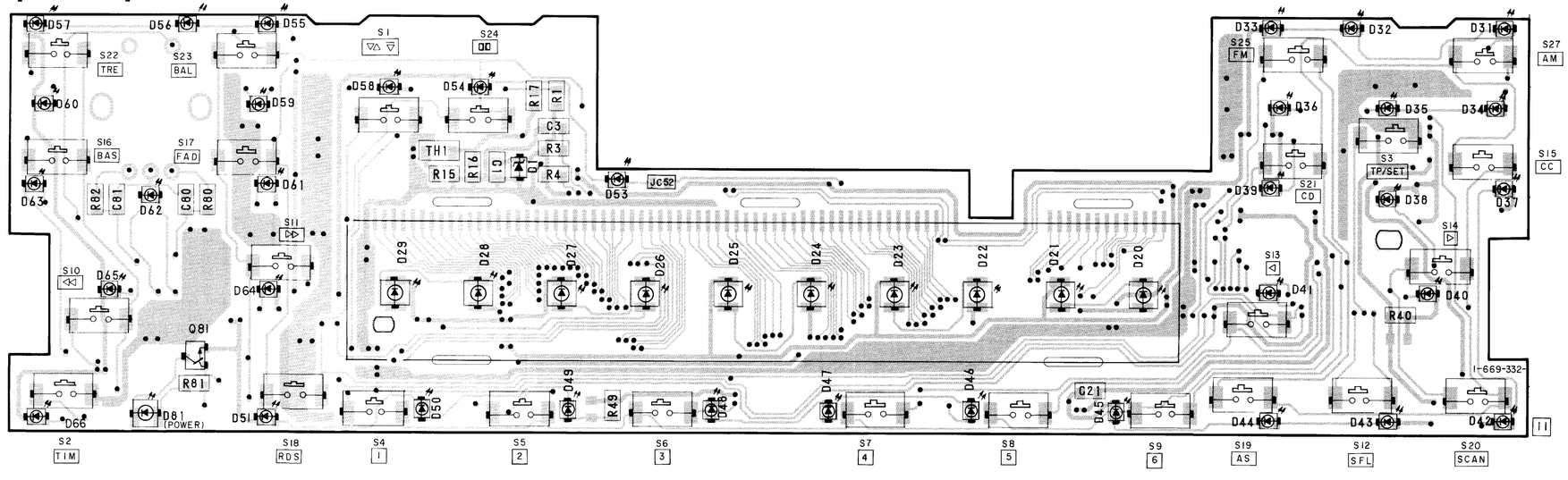
Ref. No.	Location	Ref. No.	Location
D1	B-4	D45	D-8
D2	E-3	D46	C-7
D3	E-3	D47	C-6
D4	E-3	D48	D-6
D5	F-8	D49	C-5
D6	F-8	D50	D-4
D7	F-10	D51	D-2
D20	C-9	D53	B-5
D21	C-8	D54	A-4
D22	C-7	D55	A-3
D23	C-7	D56	A-2
D24	C-6	D57	A-1
D25	C-6	D58	A-3
D26	C-5	D59	A-3
D27	C-5	D60	A-1
D28	C-4	D61	B-3
D29	C-3	D62	B-2
D31	A-11	D63	B-1
D32	A-10	D64	C-2
D33	A-9	D65	C-1
D34	A-11	D66	D-1
D35	A-10	D81	D-2
D36	A-10		
D37	B-11	IC1	F-5
D38	B-10		
D39	B-9	Q21	G-9
D40	C-11	Q22	F-10
D41	C-10	Q31	F-11
D42	D-11	Q32	F-10
D43	D-10	Q81	C-2
D44	D-9		

Note:

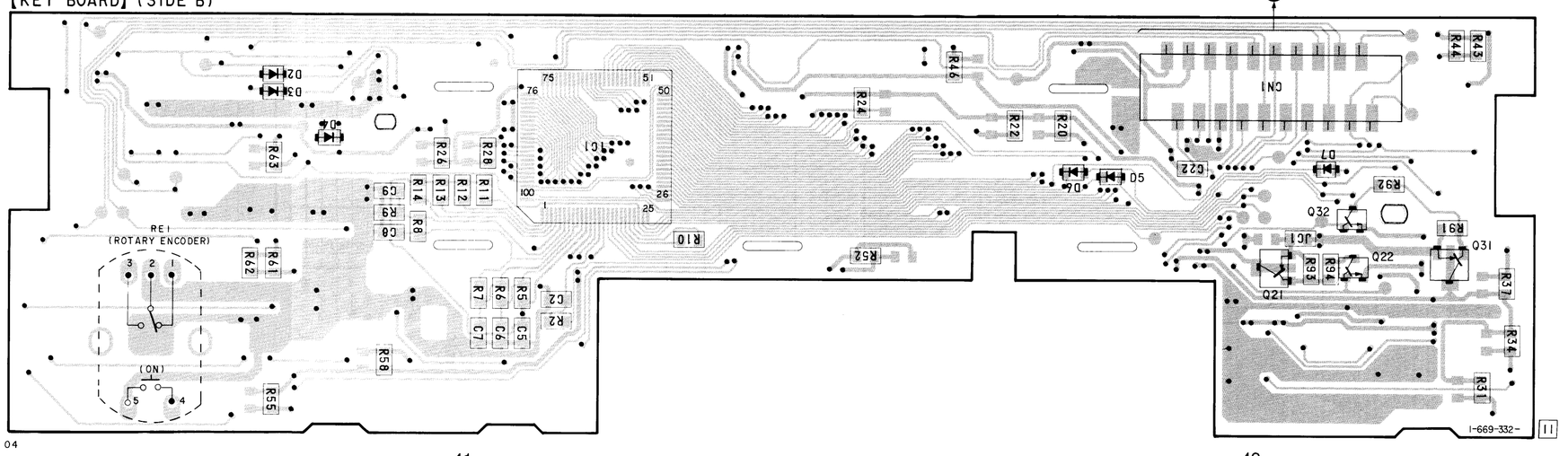
- ○—— : parts extracted from the component side.
- ● : Through hole.
- ▒▒▒ : Pattern from the side which enables seeing. (The other layer's patterns are not indicated.)

Caution:	
Pattern face side: (Side B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A)	Parts on the parts face side seen from the parts face are indicated.

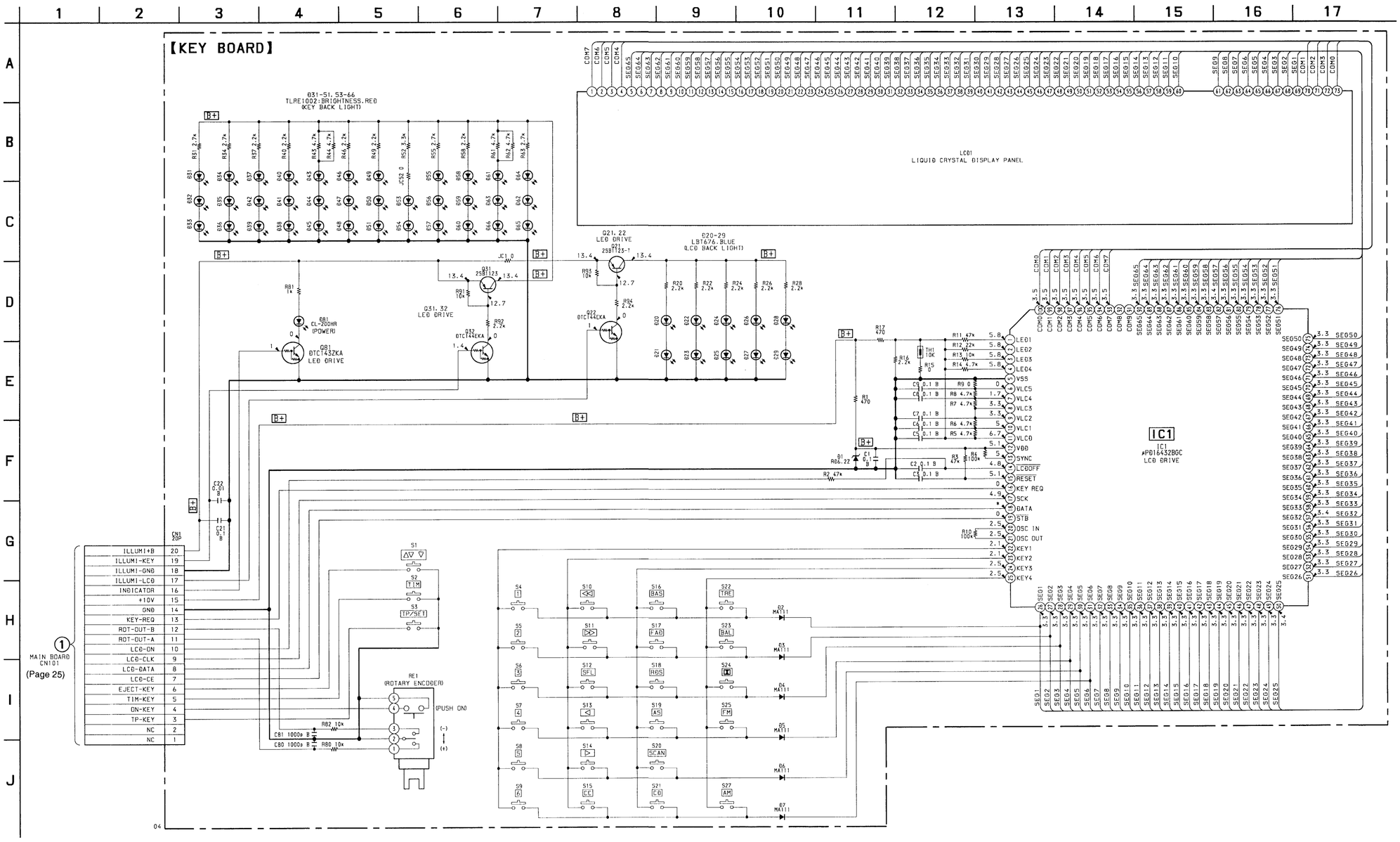
【KEY BOARD】(SIDE A)



【KEY BOARD】(SIDE B)



2-13. SCHEMATIC DIAGRAM — PANEL SECTION —

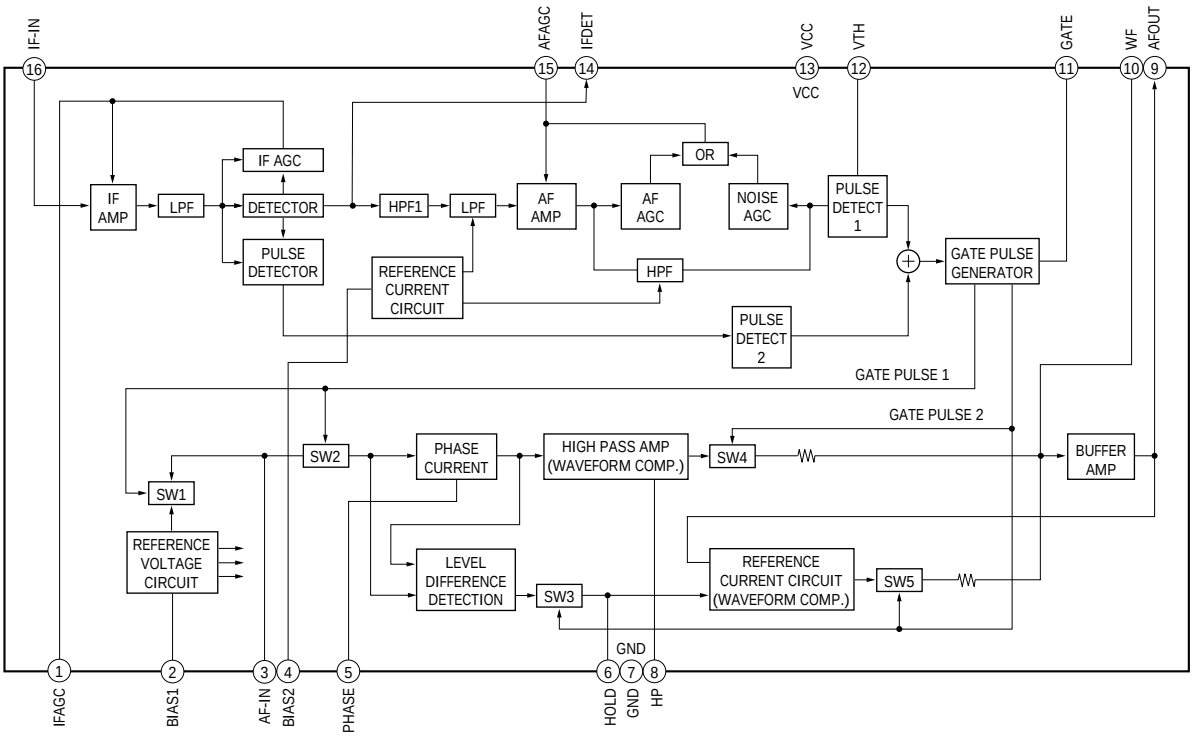


Note:

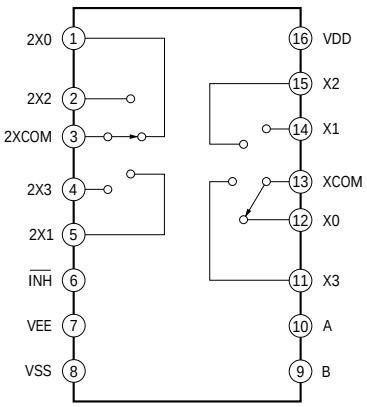
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- ▭ : panel designation.
- B+ : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.

• IC Block Diagrams

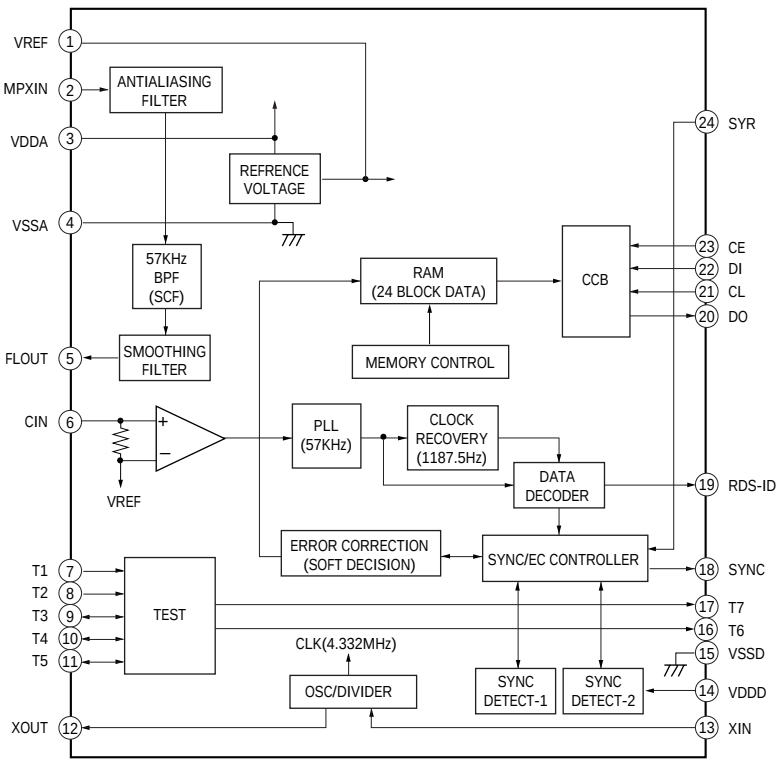
IC141 HA12181FP



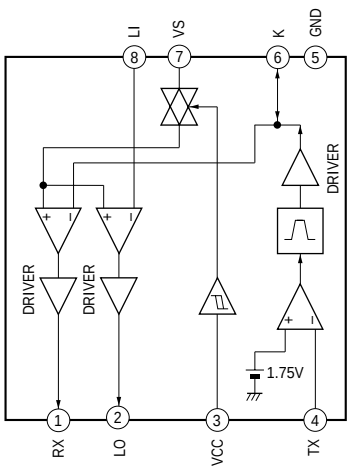
IC531 MC14052B



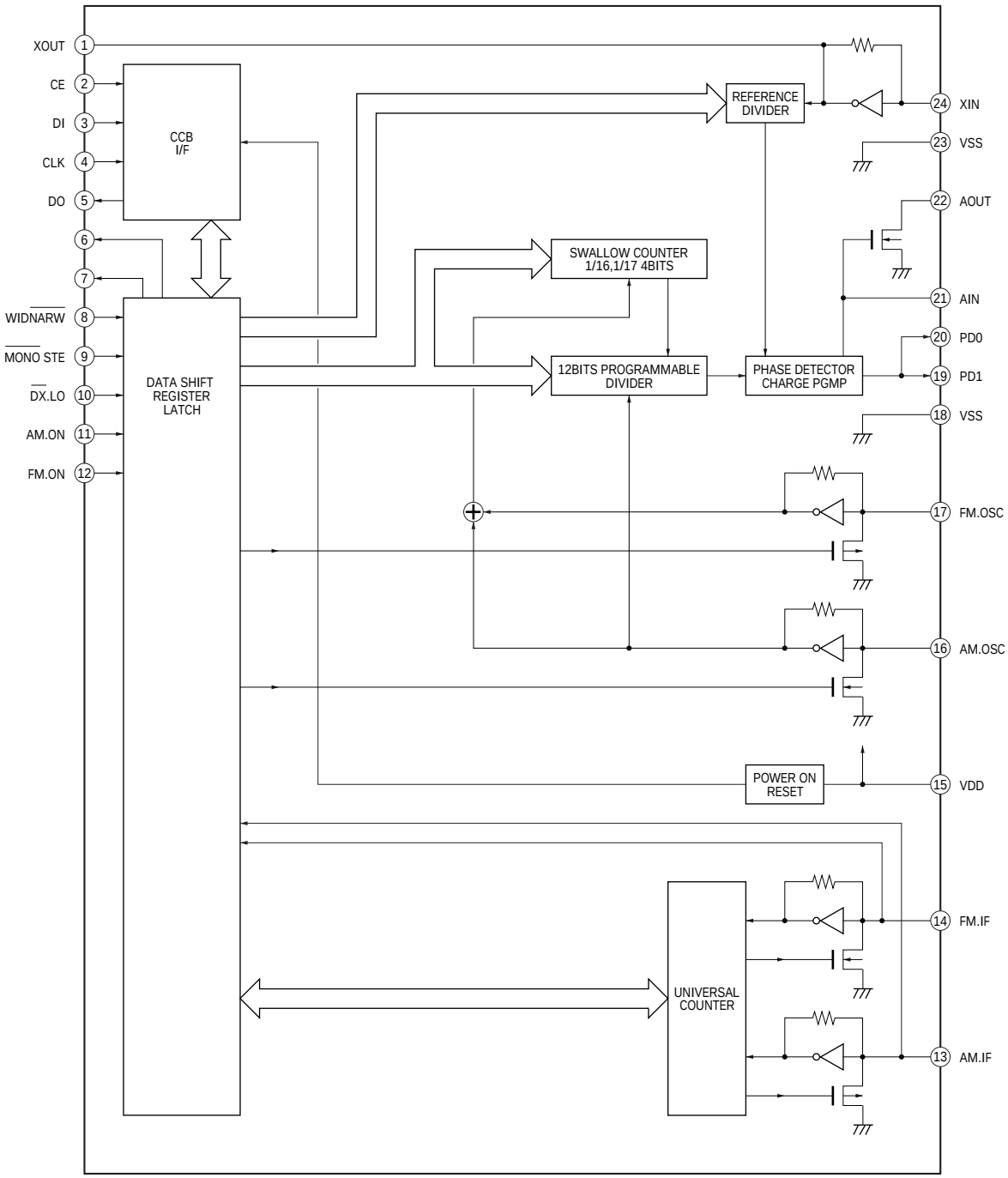
IC210 LC72720M



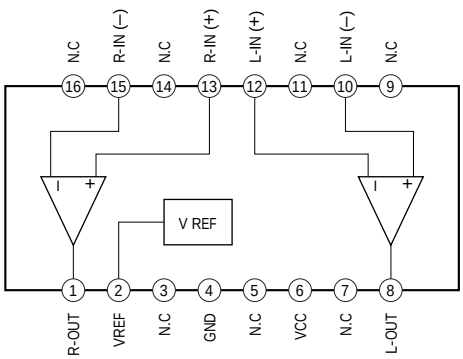
IC821 L9637D



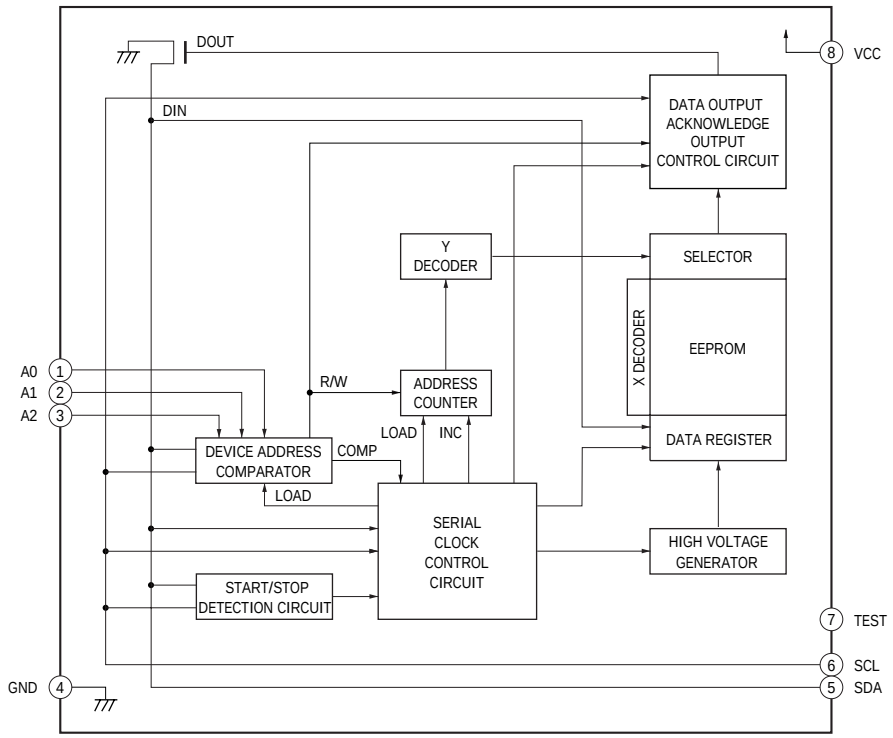
IC121 LC72146M



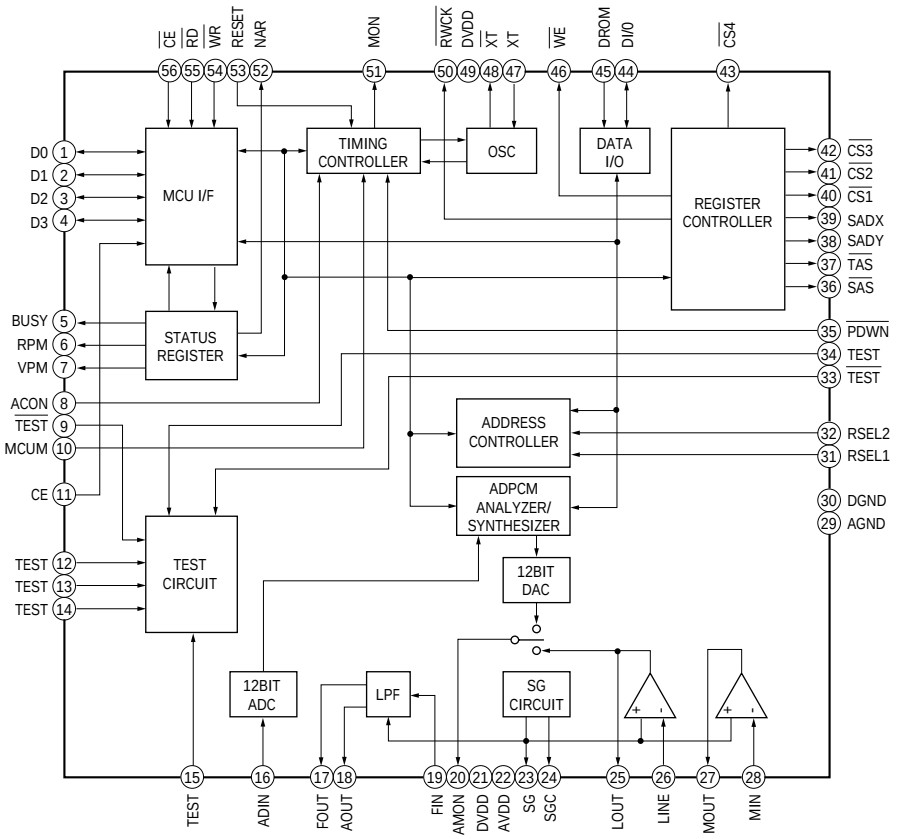
IC561 TA2050F



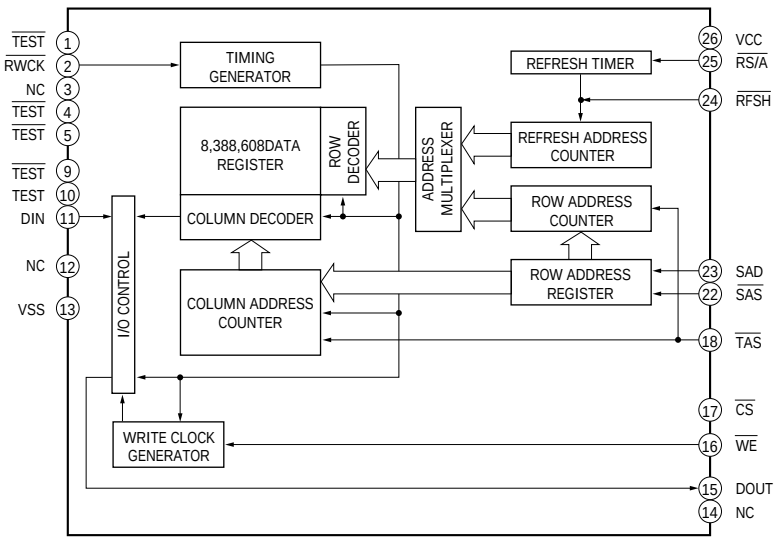
IC241 S-24C04AFJA



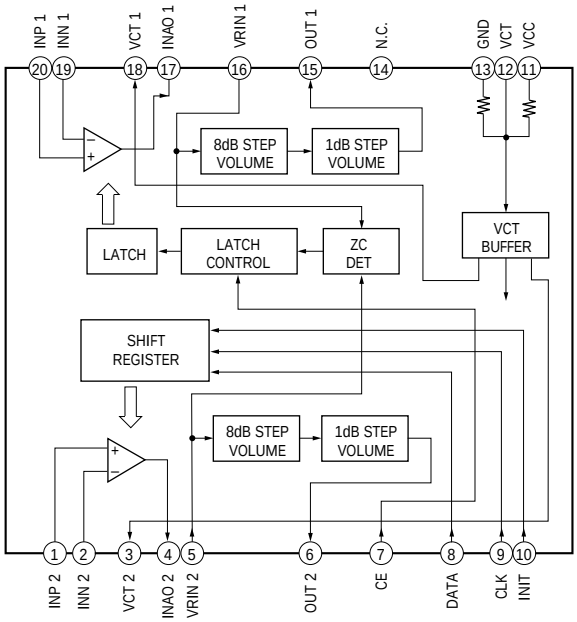
IC301 MSM6688GS-2K



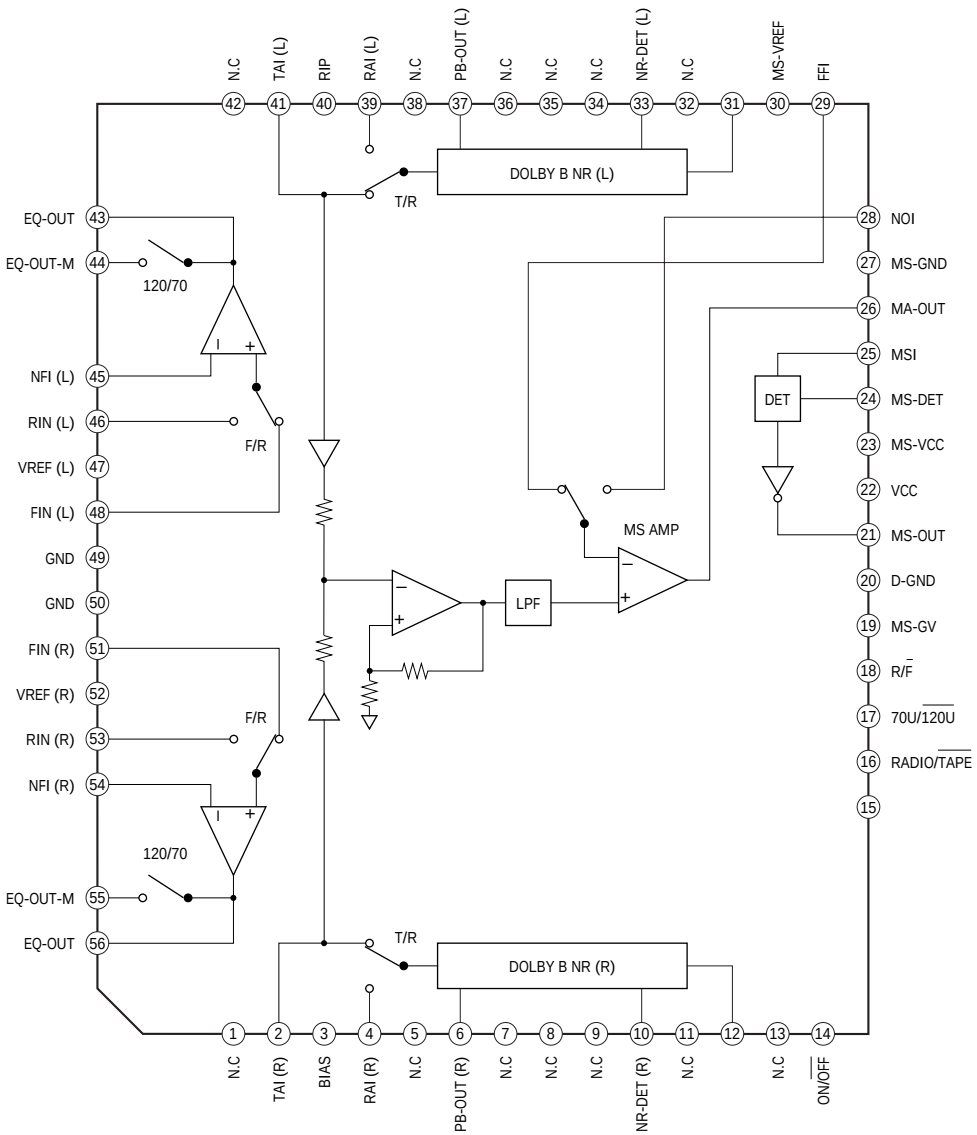
IC302 MSM6684JSDR1



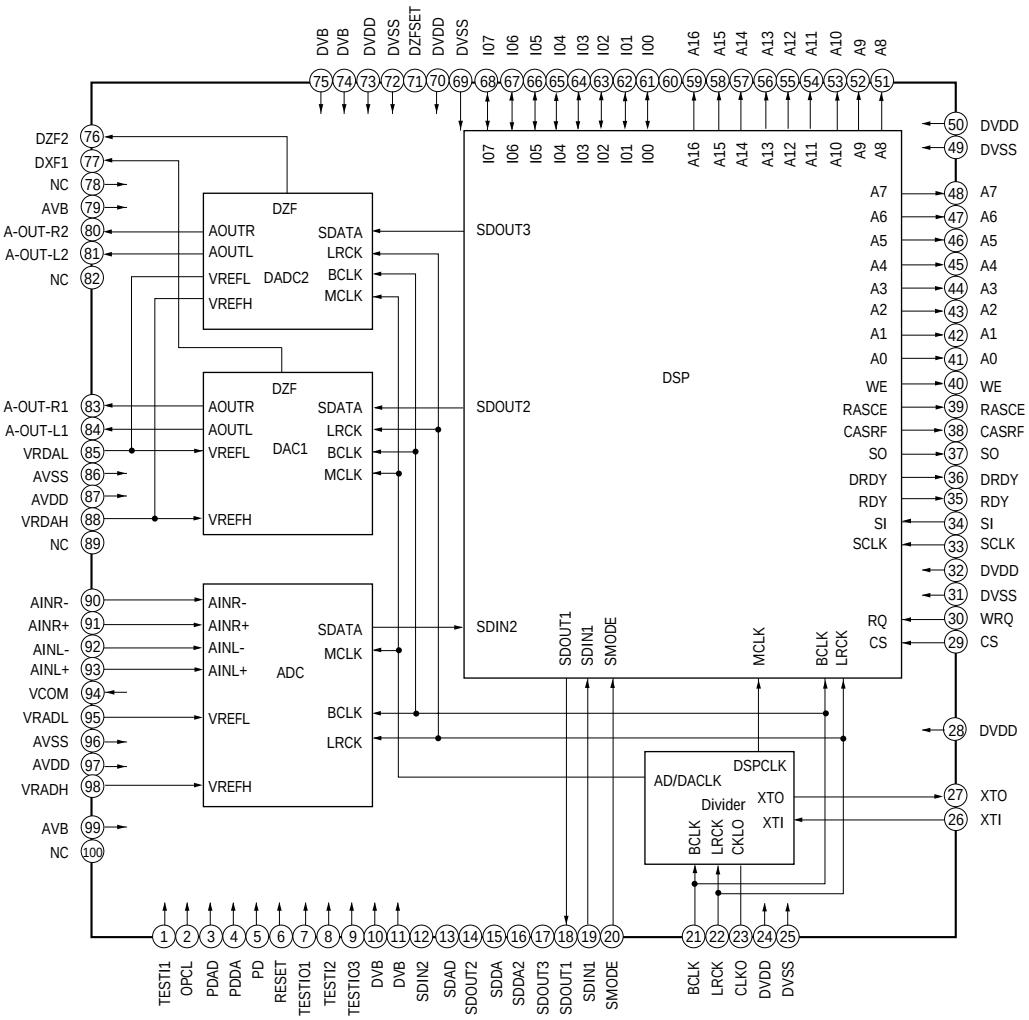
IC605, 607 CXA1846N



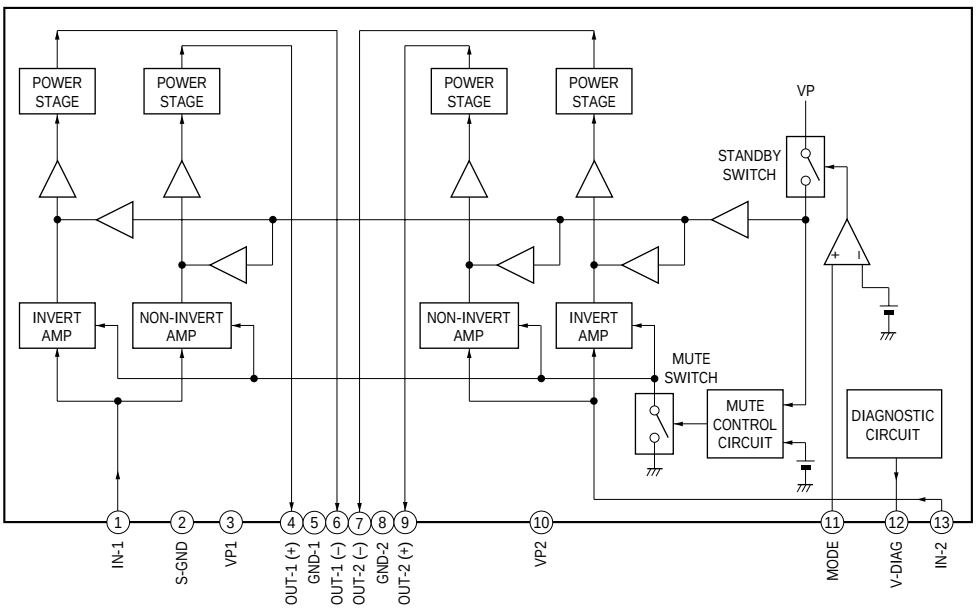
IC401 HA12164



IC603 AK7712A



IC901, 902 TDA8563AQ

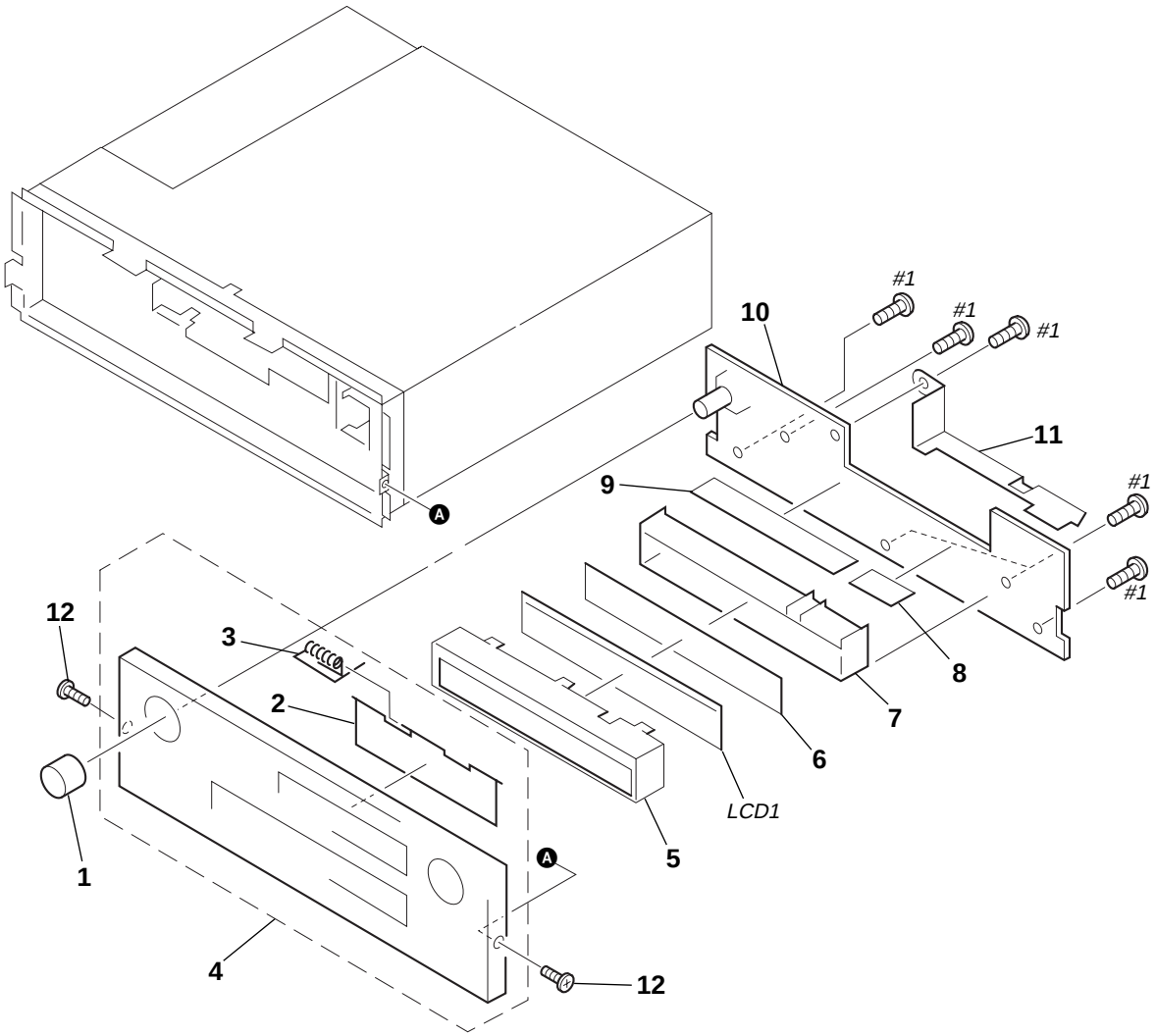


SECTION 3
EXPLODED VIEWS

NOTE:

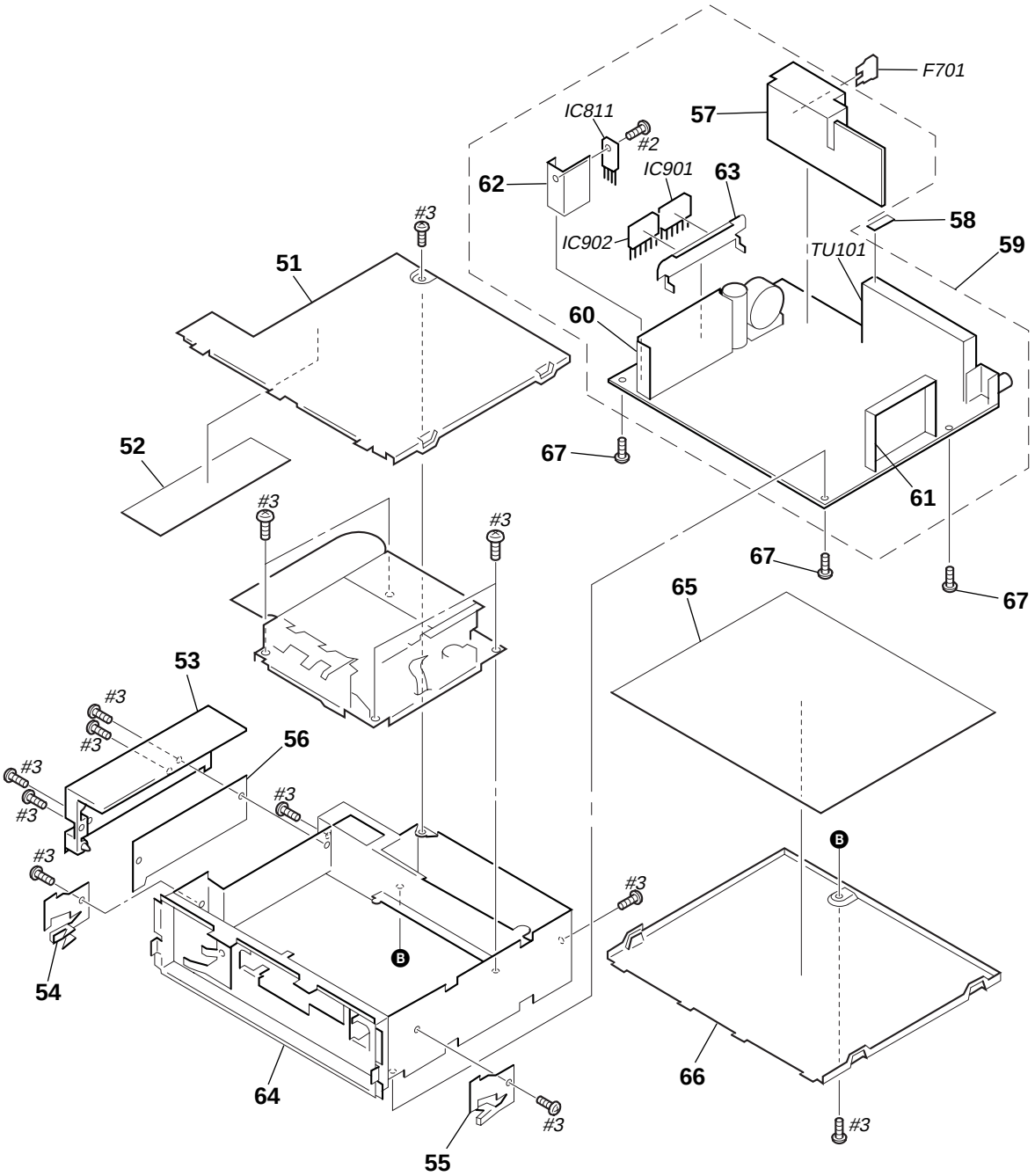
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) ... (RED)
  ↑ Parts Color ↑ Cabinet's Color
- Accessories and packing materials and hardware (# mark) list are given in the last of this parts list.

3-1. MAIN SECTION



Ref. No.	Part No.	Description	Remark
1	3-018-731-01	KNOB (VR)	
2	3-018-733-01	DOOR, CASSETTE	
3	3-023-488-01	SPRING (C DOOR)	
4	X-3375-293-1	PANEL ASSY, FRONT	
* 5	3-022-190-01	COVER (LCD)	
* 6	3-023-486-01	ILLUMINATOR (LCD)	
* 7	3-018-740-01	HOLDER (LCD)	
8	1-784-436-11	CONTACT, RUBBER	
9	1-784-437-11	CONTACT, RUBBER	
* 10	A-3313-640-A	KEY BOARD, COMPLETE	
* 11	3-022-750-01	PLATE (4), GROUND	
12	3-021-615-01	SCREW (2X4.5)	
LCD1	1-803-073-11	DISPLAY PANEL, LIQUID CRYSTAL	

3-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
* 51	3-014-877-01	COVER (UPPER)	
* 52	3-020-188-01	SHEET (2), INSULATING	
* 53	3-014-879-01	HEAT SINK	
* 54	3-014-887-01	SPRING (L)	
* 55	3-014-888-01	SPRING (R)	
* 56	3-022-805-01	PLATE (D581), HEAT INSULATING	
* 57	A-3313-638-A	CONNECTOR BOARD, COMPLETE	
* 58	3-355-209-01	PLATE (B), GROUND	
* 59	A-3313-632-A	MAIN BOARD, COMPLETE	
* 60	A-3301-363-A	DSP BOARD, COMPLETE	
* 61	A-3313-636-A	TIM BOARD, COMPLETE	

Ref. No.	Part No.	Description	Remark
* 62	3-020-187-01	BRACKET (IC 2)	
* 63	3-014-880-01	BRACKET (IC)	
* 64	X-3373-873-1	CHASSIS ASSY, MAIN	
* 65	3-022-806-01	SHEET (INSULATING)	
* 66	3-014-878-01	COVER (LOWER)	
67	3-915-923-01	SCREW, GROUND POINT	
F701	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
IC811	8-759-054-12	IC PQ09RA1	
IC901	8-759-462-53	IC TDA8563AQ	
IC902	8-759-462-53	IC TDA8563AQ	
TU101	A-3282-046-A	TUNER UNIT (TUX-012V(E))	

SECTION 4
ELECTRICAL PARTS LIST

CONNECTOR **DSP**

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA.. : µA.. uPA.. : µPA..
  uPB.. : µPB.. uPC.. : µPC.. uPD.. : µPD..
- CAPACITORS
  uF: µF
- COILS
  uH: µH

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
*	A-3313-638-A	CONNECTOR BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C701	1-124-598-61	ELECT	22uF	20%	25V
C702	1-124-598-61	ELECT	22uF	20%	25V
C703	1-128-126-11	ELECT	100uF	20%	25V
C704	1-124-598-61	ELECT	22uF	20%	25V
C705	1-124-598-61	ELECT	22uF	20%	25V
C706	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C707	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C708	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C709	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C710	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C711	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C712	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C713	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C714	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C715	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C716	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C717	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C718	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
		< CONNECTOR >			
CNP701	1-784-663-11	PIN, CONNECTOR (PC BOARD) 20P			
		< DIODE >			
D704	8-719-057-00	DIODE UDZ-TE-17-36B			
D705	8-719-057-00	DIODE UDZ-TE-17-36B			
D706	8-719-057-00	DIODE UDZ-TE-17-36B			
D707	8-719-057-00	DIODE UDZ-TE-17-36B			
D708	8-719-057-00	DIODE UDZ-TE-17-36B			
D709	8-719-057-00	DIODE UDZ-TE-17-36B			
D711	8-719-210-33	DIODE EC10DS2			
D727	8-719-404-49	DIODE MA111			
D728	8-719-404-49	DIODE MA111			
		< CONNECTOR >			
ISO701	1-779-908-11	PIN, CONNECTOR (ISO) 36P			

Ref. No.	Part No.	Description			Remark
		< TRANSISTOR >			
Q701	8-729-900-53	TRANSISTOR DTC114EK			
Q703	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q704	8-729-230-49	TRANSISTOR 2SC2712-YG			
		< RESISTOR >			
R701	1-216-073-00	METAL CHIP	10K	5%	1/10W
R702	1-216-073-00	METAL CHIP	10K	5%	1/10W
R703	1-216-073-00	METAL CHIP	10K	5%	1/10W
R704	1-216-073-00	METAL CHIP	10K	5%	1/10W
R705	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R706	1-216-073-00	METAL CHIP	10K	5%	1/10W
R707	1-216-073-00	METAL CHIP	10K	5%	1/10W
R708	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R709	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R710	1-216-073-00	METAL CHIP	10K	5%	1/10W
R711	1-216-085-00	METAL CHIP	33K	5%	1/10W
R712	1-216-073-00	METAL CHIP	10K	5%	1/10W
R713	1-216-085-00	METAL CHIP	33K	5%	1/10W
R714	1-216-073-00	METAL CHIP	10K	5%	1/10W
R718	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R719	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R720	1-216-049-11	RES,CHIP	1K	5%	1/10W
R721	1-216-049-11	RES,CHIP	1K	5%	1/10W
R722	1-216-049-11	RES,CHIP	1K	5%	1/10W
R724	1-216-041-00	METAL CHIP	470	5%	1/10W
R725	1-216-017-00	RES,CHIP	47	5%	1/10W
R726	1-216-017-00	RES,CHIP	47	5%	1/10W
R727	1-216-041-00	METAL CHIP	470	5%	1/10W
R728	1-216-041-00	METAL CHIP	470	5%	1/10W
		< THERMISTOR (POSITIVE) >			
TH701	1-803-318-21	THERMISTOR, POSITIVE			
**********					
*	A-3301-363-A	DSP BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C601	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C602	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C603	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C604	1-124-779-00	ELECT CHIP	10uF	20%	16V
C605	1-124-779-00	ELECT CHIP	10uF	20%	16V

DSP

Ref. No.	Part No.	Description			Remark
C606	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C607	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C608	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C609	1-124-779-00	ELECT CHIP	10uF	20%	16V
C610	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C611	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C612	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C613	1-124-779-00	ELECT CHIP	10uF	20%	16V
C614	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C615	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C616	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C617	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C618	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C619	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C620	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C621	1-124-779-00	ELECT CHIP	10uF	20%	16V
C622	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C623	1-126-601-11	ELECT CHIP	2.2uF	20%	50V
C624	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C625	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C626	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C627	1-124-779-00	ELECT CHIP	10uF	20%	16V
C629	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C633	1-126-601-11	ELECT CHIP	2.2uF	20%	50V
C634	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C635	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C636	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C637	1-124-779-00	ELECT CHIP	10uF	20%	16V
C638	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C640	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C650	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C651	1-124-779-00	ELECT CHIP	10uF	20%	16V
C652	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C653	1-126-601-11	ELECT CHIP	2.2uF	20%	50V
C654	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C655	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C656	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C657	1-124-779-00	ELECT CHIP	10uF	20%	16V
C659	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C663	1-126-601-11	ELECT CHIP	2.2uF	20%	50V
C664	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C665	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C666	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C667	1-124-779-00	ELECT CHIP	10uF	20%	16V
C668	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C670	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
		< CONNECTOR >			
CNP601	1-784-660-11	PIN, CONNECTOR (PC BOARD) 24P			
		< IC >			
IC601	8-759-331-71	IC NJM4558E(TE2)			
IC602	8-759-331-71	IC NJM4558E(TE2)			
IC603	8-759-462-52	IC AK7712A			
IC604	8-759-331-71	IC NJM4558E(TE2)			
IC605	8-752-067-30	IC CXA1846N			
IC606	8-759-331-71	IC NJM4558E(TE2)			
IC607	8-752-067-30	IC CXA1846N			
		< COIL >			
L601	1-412-060-11	INDUCTOR CHIP	22uH		
L602	1-412-060-11	INDUCTOR CHIP	22uH		
		< RESISTOR >			
R620	1-216-089-00	RES,CHIP	47K	5%	1/10W
R621	1-216-089-00	RES,CHIP	47K	5%	1/10W
R622	1-216-073-00	METAL CHIP	10K	5%	1/10W
R623	1-216-073-00	METAL CHIP	10K	5%	1/10W
R624	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R625	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R626	1-216-073-00	METAL CHIP	10K	5%	1/10W
R627	1-216-073-00	METAL CHIP	10K	5%	1/10W
R628	1-216-073-00	METAL CHIP	10K	5%	1/10W
R629	1-216-073-00	METAL CHIP	10K	5%	1/10W
R630	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R631	1-216-075-00	METAL CHIP	12K	5%	1/10W
R632	1-216-089-00	RES,CHIP	47K	5%	1/10W
R636	1-216-073-00	METAL CHIP	10K	5%	1/10W
R637	1-216-073-00	METAL CHIP	10K	5%	1/10W
R638	1-216-073-00	METAL CHIP	10K	5%	1/10W
R639	1-216-073-00	METAL CHIP	10K	5%	1/10W
R640	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R641	1-216-089-00	RES,CHIP	47K	5%	1/10W
R642	1-216-075-00	METAL CHIP	12K	5%	1/10W
R650	1-216-089-00	RES,CHIP	47K	5%	1/10W
R651	1-216-089-00	RES,CHIP	47K	5%	1/10W
R652	1-216-073-00	METAL CHIP	10K	5%	1/10W
R653	1-216-073-00	METAL CHIP	10K	5%	1/10W
R654	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R655	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R656	1-216-073-00	METAL CHIP	10K	5%	1/10W
R657	1-216-073-00	METAL CHIP	10K	5%	1/10W
R658	1-216-073-00	METAL CHIP	10K	5%	1/10W
R659	1-216-073-00	METAL CHIP	10K	5%	1/10W
R660	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R661	1-216-075-00	METAL CHIP	12K	5%	1/10W
R662	1-216-089-00	RES,CHIP	47K	5%	1/10W
R666	1-216-073-00	METAL CHIP	10K	5%	1/10W
R667	1-216-073-00	METAL CHIP	10K	5%	1/10W
R668	1-216-073-00	METAL CHIP	10K	5%	1/10W
R669	1-216-073-00	METAL CHIP	10K	5%	1/10W
R670	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R671	1-216-075-00	METAL CHIP	12K	5%	1/10W
R672	1-216-089-00	RES,CHIP	47K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R680	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R691	1-216-821-11	METAL CHIP	1K	5%	1/16W
R692	1-216-821-11	METAL CHIP	1K	5%	1/16W
R693	1-216-821-11	METAL CHIP	1K	5%	1/16W
R694	1-216-821-11	METAL CHIP	1K	5%	1/16W
		< VIBRATOR >			
X601	1-767-467-11	VIBRATOR, CRYSTAL (16.9344MHz)			
**********					
*	A-3313-640-A	KEY BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C1	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C2	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C3	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C5	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C6	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C7	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C8	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C9	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C21	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C22	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C80	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C81	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
		< CONNECTOR >			
CN1	1-779-170-11	SOCKET, CONNECTOR 20P			
		< DIODE >			
D1	8-719-058-80	DIODE RD6.2Z-T1B			
D2	8-719-404-49	DIODE MA111			
D3	8-719-404-49	DIODE MA111			
D4	8-719-404-49	DIODE MA111			
D5	8-719-404-49	DIODE MA111			
D6	8-719-404-49	DIODE MA111			
D7	8-719-404-49	DIODE MA111			
D20	8-719-064-68	DIODE LBT676			
D21	8-719-064-68	DIODE LBT676			
D22	8-719-064-68	DIODE LBT676			
D23	8-719-064-68	DIODE LBT676			
D24	8-719-064-68	DIODE LBT676			
D25	8-719-064-68	DIODE LBT676			
D26	8-719-064-68	DIODE LBT676			
D27	8-719-064-68	DIODE LBT676			
D28	8-719-064-68	DIODE LBT676			
D29	8-719-064-68	DIODE LBT676			
D31	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D32	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D33	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D34	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D35	8-719-067-45	LED TLRE1002(TPX1.SONY)			

Ref. No.	Part No.	Description			Remark
D36	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D37	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D38	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D39	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D40	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D41	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D42	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D43	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D44	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D45	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D46	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D47	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D48	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D49	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D50	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D51	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D53	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D54	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D55	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D56	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D57	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D58	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D59	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D60	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D61	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D62	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D63	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D64	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D65	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D66	8-719-067-45	LED TLRE1002(TPX1.SONY)			
D81	8-719-989-53	LED CL-200HR-C-TSL (POWER)			
		< IC >			
IC1	8-759-496-35	IC uPD16432BGC			
		< JUMPER RESISTOR >			
JC1	1-216-295-00	SHORT	0		
JC52	1-216-295-00	SHORT	0		
		< TRANSISTOR >			
Q21	8-729-807-35	TRANSISTOR 2SB1123-T			
Q22	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q31	8-729-807-35	TRANSISTOR 2SB1123-T			
Q32	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q81	8-729-027-58	TRANSISTOR DTC143ZKA-T146			
		< RESISTOR >			
R1	1-216-041-00	METAL CHIP	470	5%	1/10W
R2	1-216-089-00	RES,CHIP	47K	5%	1/10W
R3	1-216-089-00	RES,CHIP	47K	5%	1/10W
R4	1-216-097-00	RES,CHIP	100K	5%	1/10W
R5	1-216-065-00	RES,CHIP	4.7K	5%	1/10W

KEY MAIN

Ref. No.	Part No.	Description			Remark
R6	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R7	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R8	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R9	1-216-295-00	SHORT	0		
R10	1-216-097-00	RES,CHIP	100K	5%	1/10W
R11	1-216-089-00	RES,CHIP	47K	5%	1/10W
R12	1-216-081-00	METAL CHIP	22K	5%	1/10W
R13	1-216-073-00	METAL CHIP	10K	5%	1/10W
R14	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R15	1-216-295-00	SHORT	0		
R16	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R17	1-216-041-00	METAL CHIP	470	5%	1/10W
R20	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R22	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R24	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R26	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R28	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R31	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R34	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R37	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R40	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R43	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R44	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R46	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R49	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R52	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R55	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R58	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R61	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R62	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R63	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R80	1-216-073-00	METAL CHIP	10K	5%	1/10W
R81	1-216-049-11	RES,CHIP	1K	5%	1/10W
R82	1-216-073-00	METAL CHIP	10K	5%	1/10W
R91	1-216-073-00	METAL CHIP	10K	5%	1/10W
R92	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R93	1-216-073-00	METAL CHIP	10K	5%	1/10W
R94	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
		< ROTARY ENCODER >			
RE1	1-475-730-11	ENCODER, ROTARY			
		< SWITCH >			
S1	1-762-400-11	SWITCH (▽△ ⏎)			
S2	1-762-400-11	SWITCH (TIM)			
S3	1-762-400-11	SWITCH (TP/SET)			
S4	1-762-400-11	SWITCH (1)			
S5	1-762-400-11	SWITCH (2)			
S6	1-762-400-11	SWITCH (3)			
S7	1-762-400-11	SWITCH (4)			
S8	1-762-400-11	SWITCH (5)			
S9	1-762-400-11	SWITCH (6)			
S10	1-762-400-11	SWITCH (◁◁)			

Ref. No.	Part No.	Description			Remark
S11	1-762-400-11	SWITCH (▷▷)			
S12	1-762-400-11	SWITCH (SFL)			
S13	1-762-400-11	SWITCH (◁)			
S14	1-762-400-11	SWITCH (▷)			
S15	1-762-400-11	SWITCH (CC)			
S16	1-762-400-11	SWITCH (BAS)			
S17	1-762-400-11	SWITCH (FAD)			
S18	1-762-400-11	SWITCH (RDS)			
S19	1-762-400-11	SWITCH (AS)			
S20	1-762-400-11	SWITCH (SCAN)			
S21	1-762-400-11	SWITCH (CD)			
S22	1-762-400-11	SWITCH (TRE)			
S23	1-762-400-11	SWITCH (BAL)			
S24	1-762-400-11	SWITCH (□□)			
S25	1-762-400-11	SWITCH (FM)			
S27	1-762-400-11	SWITCH (AM)			
		< THERMISTOR >			
TH1	1-810-719-21	THERMISTOR			
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*	A-3313-632-A	MAIN BOARD, COMPLETE (INCLUDING CONNECTOR BOARD AND TIM BOARD, COMPLETE)			
		**********			
*	3-014-880-01	BRACKET (IC)			
*	3-020-187-01	BRACKET (IC 2)			
	7-682-948-01	SCREW +PSW 3X8			
		< CAPACITOR >			
C13	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C102	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C103	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C104	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C105	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C106	1-124-584-00	ELECT	100uF	20%	10V
C107	1-124-584-00	ELECT	100uF	20%	10V
C108	1-124-584-00	ELECT	100uF	20%	10V
C109	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C119	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C120	1-124-230-11	ELECT	47uF	20%	6.3V
C121	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C122	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C123	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C124	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C125	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C126	1-115-322-00	FILM	0.047uF	5%	50V
C127	1-110-351-11	MYLAR	0.001uF	5%	50V
C128	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C129	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C130	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C131	1-124-589-11	ELECT	47uF	20%	16V
C132	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C133	1-124-233-11	ELECT	10uF	20%	16V
C134	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V

Ref. No.	Part No.	Description			Remark
C140	1-126-162-11	ELECT	3.3uF	20%	50V
C141	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C142	1-164-344-11	CERAMIC CHIP	0.068uF	10%	25V
C143	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C144	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C145	1-164-344-11	CERAMIC CHIP	0.068uF	10%	25V
C146	1-164-344-11	CERAMIC CHIP	0.068uF	10%	25V
C147	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C148	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C149	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C150	1-124-233-11	ELECT	10uF	20%	16V
C151	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C152	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C153	1-126-160-11	ELECT	1uF	20%	50V
C160	1-163-024-00	CERAMIC CHIP	0.018uF	10%	50V
C161	1-163-024-00	CERAMIC CHIP	0.018uF	10%	50V
C171	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C172	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C173	1-164-344-11	CERAMIC CHIP	0.068uF	10%	25V
C174	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C175	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C180	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C181	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C182	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C183	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C184	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C185	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C186	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C187	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C201	1-124-635-00	ELECT	220uF	20%	6.3V
C202	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C203	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C204	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C205	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C206	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C210	1-124-233-11	ELECT	10uF	20%	16V
C211	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C212	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C213	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C214	1-163-135-00	CERAMIC CHIP	560PF	5%	50V
C215	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C216	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C217	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C231	1-124-589-11	ELECT	47uF	20%	16V
C232	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C233	1-124-233-11	ELECT	10uF	20%	16V
C234	1-124-230-11	ELECT	47uF	20%	6.3V
C241	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C242	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C243	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C251	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C301	1-164-344-11	CERAMIC CHIP	0.068uF	10%	25V
C302	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C304	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C311	1-164-344-11	CERAMIC CHIP	0.068uF	10%	25V
C312	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C314	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C401	1-124-233-11	ELECT	10uF	20%	16V
C402	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C403	1-126-153-11	ELECT	22uF	20%	6.3V
C404	1-126-160-11	ELECT	1uF	20%	50V
C405	1-163-018-00	CERAMIC CHIP	0.0056uF	5%	50V
C406	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C407	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C410	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C411	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C412	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C421	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C422	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C431	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C432	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C433	1-115-326-00	FILM	0.1uF	5%	50V
C441	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C442	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C443	1-115-326-00	FILM	0.1uF	5%	50V
C450	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C451	1-126-941-11	ELECT	470uF	20%	25V
C452	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C511	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C512	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C513	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C514	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C521	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C522	1-124-233-11	ELECT	10uF	20%	16V
C523	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C527	1-124-499-11	ELECT(NONPOLAR)	1uF	20%	50V
C528	1-124-499-11	ELECT(NONPOLAR)	1uF	20%	50V
C530	1-124-589-11	ELECT	47uF	20%	16V
C531	1-126-160-11	ELECT	1uF	20%	50V
C533	1-126-160-11	ELECT	1uF	20%	50V
C534	1-126-160-11	ELECT	1uF	20%	50V
C537	1-126-160-11	ELECT	1uF	20%	50V
C538	1-126-160-11	ELECT	1uF	20%	50V
C539	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C540	1-124-967-11	ELECT	10uF	20%	10V
C550	1-124-967-11	ELECT	10uF	20%	10V
C561	1-124-589-11	ELECT	47uF	20%	16V
C562	1-124-589-11	ELECT	47uF	20%	16V
C563	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C564	1-124-233-11	ELECT	10uF	20%	16V
C565	1-124-233-11	ELECT	10uF	20%	16V
C566	1-124-233-11	ELECT	10uF	20%	16V
C567	1-124-233-11	ELECT	10uF	20%	16V
C572	1-124-499-11	ELECT(NONPOLAR)	1uF	20%	50V
C573	1-124-499-11	ELECT(NONPOLAR)	1uF	20%	50V
C575	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V

MAIN

Ref. No.	Part No.	Description			Remark
C581	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C582	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C583	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C701	1-163-259-11	CERAMIC CHIP	220PF	5%	50V
C703	1-163-259-11	CERAMIC CHIP	220PF	5%	50V
C705	1-163-259-11	CERAMIC CHIP	220PF	5%	50V
C712	1-126-160-11	ELECT	1uF	20%	50V
C715	1-126-160-11	ELECT	1uF	20%	50V
C721	1-126-160-11	ELECT	1uF	20%	50V
C722	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C723	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C724	1-126-160-11	ELECT	1uF	20%	50V
C725	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C751	1-115-334-11	FILM	0.47uF	5%	50V
C752	1-115-334-11	FILM	0.47uF	5%	50V
C753	1-115-334-11	FILM	0.47uF	5%	50V
C754	1-115-334-11	FILM	0.47uF	5%	50V
C762	1-126-160-11	ELECT	1uF	20%	50V
C765	1-126-160-11	ELECT	1uF	20%	50V
C771	1-126-160-11	ELECT	1uF	20%	50V
C772	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C773	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C774	1-126-160-11	ELECT	1uF	20%	50V
C775	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C776	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C777	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C778	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C779	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C781	1-126-160-11	ELECT	1uF	20%	50V
C782	1-126-767-11	ELECT	1000uF	20%	16V
C790	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C791	1-124-233-11	ELECT	10uF	20%	16V
C792	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C793	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C794	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C801	1-124-635-00	ELECT	220uF	20%	6.3V
C802	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C803	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C804	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C805	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C806	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C810	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C811	1-104-957-11	ELECT	47uF	20%	16V
C812	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C814	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C816	1-124-233-11	ELECT	10uF	20%	16V
C818	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C819	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C820	1-124-589-11	ELECT	47uF	20%	16V
C821	1-124-233-11	ELECT	10uF	20%	16V
C822	1-124-230-11	ELECT	47uF	20%	6.3V
C823	1-126-935-11	ELECT	470uF	20%	6.3V
C824	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V

Ref. No.	Part No.	Description			Remark
C825	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C826	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C827	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C828	1-124-635-00	ELECT	220uF	20%	6.3V
C829	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C831	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C833	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C842	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C843	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C861	1-126-153-11	ELECT	22uF	20%	6.3V
C891	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C901	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C902	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C904	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C911	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C921	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C922	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C923	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C924	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C925	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C931	1-111-049-11	ELECT	4700uF	20%	16V
C932	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C933	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C934	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C941	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C942	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C943	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C944	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C945	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C952	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C953	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C960	1-124-233-11	ELECT	10uF	20%	16V
C962	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V

< CONNECTOR >

CN101	1-770-411-11	CONNECTOR, BOARD TO BOARD 20P
CN401	1-784-719-11	SOCKET, CONNECTOR 5P
CN451	1-784-721-11	HOUSING, CONNECTOR 8P

< DISCHARGE GAP >

CP101	1-519-504-11	GAP, DISCHARGE

< DIODE >

D13	8-719-978-69	DIODE DTZ-TT11-16B
D130	8-719-977-22	DIODE DTZ9.1
D131	8-719-420-51	DIODE MA729
D132	8-719-210-33	DIODE EC10DS2
D172	8-719-820-41	DIODE 1SS302
D181	8-719-820-41	DIODE 1SS302
D189	8-719-977-00	DIODE DTZ5.1C
D233	8-719-977-22	DIODE DTZ9.1
D251	8-719-158-15	DIODE RD5.6S-B
D252	8-719-978-69	DIODE DTZ-TT11-16B

Ref. No.	Part No.	Description	Remark
D401	8-719-975-40	DIODE RB411D	
D451	8-719-158-15	DIODE RD5.6S-B	
D521	8-719-977-00	DIODE DTZ5.1C	
D701	8-719-057-00	DIODE UDZ-TE-17-36B	
D703	8-719-404-49	DIODE MA111	
D705	8-719-404-49	DIODE MA111	
D781	8-719-422-12	DIODE MA8039	
D782	8-719-210-33	DIODE EC10DS2	
D783	8-719-421-27	DIODE MA728	
D791	8-719-158-15	DIODE RD5.6S-B	
D801	8-719-914-44	DIODE DAP202K	
D802	8-719-914-44	DIODE DAP202K	
D803	8-719-210-33	DIODE EC10DS2	
D804	8-719-158-15	DIODE RD5.6S-B	
D810	8-719-210-33	DIODE EC10DS2	
D811	8-719-975-40	DIODE RB411D	
D812	8-719-914-43	DIODE DAN202K	
D813	8-719-975-40	DIODE RB411D	
D814	8-719-057-00	DIODE UDZ-TE-17-36B	
D815	8-719-210-33	DIODE EC10DS2	
D816	8-719-975-40	DIODE RB411D	
D819	8-719-977-00	DIODE DTZ5.1C	
D821	8-719-975-40	DIODE RB411D	
D822	8-719-421-27	DIODE MA728	
D825	8-719-404-49	DIODE MA111	
D826	8-719-158-15	DIODE RD5.6S-B	
D841	8-719-978-69	DIODE DTZ-TT11-16B	
D881	8-719-404-49	DIODE MA111	
D901	8-719-049-38	DIODE 1N5404TU	
D903	8-719-057-00	DIODE UDZ-TE-17-36B	
D904	8-719-210-33	DIODE EC10DS2	
D906	8-719-978-69	DIODE DTZ-TT11-16B	
D922	8-719-056-88	DIODE UDZ-TE-17-11B	
D923	8-719-056-88	DIODE UDZ-TE-17-11B	
D942	8-719-056-88	DIODE UDZ-TE-17-11B	
D943	8-719-056-88	DIODE UDZ-TE-17-11B	
D960	8-719-977-17	DIODE DTZ7.5C	
D961	8-719-404-49	DIODE MA111	
D971	8-719-422-12	DIODE MA8039	
D990	8-719-023-25	DIODE MA704WK	
D991	8-719-158-15	DIODE RD5.6S-B	
		< IC >	
IC121	8-759-462-50	IC LC72146M-TLM	
IC141	8-759-367-11	IC HA12181FP-EL	
IC181	8-759-331-71	IC NJM4558E(TE2)	
IC201	8-759-567-75	IC MN1886426SW	
IC210	8-759-462-49	IC LC72720NM-TLM	
IC241	8-759-529-43	IC S-24C04AFJA-TB-01	
IC301	8-759-701-01	IC NJM2904M	
IC302	8-759-701-01	IC NJM2904M	
IC401	8-759-161-01	IC HA12164	
IC511	8-759-450-93	IC NJM2521M-TE1	

Ref. No.	Part No.	Description	Remark
IC521	8-759-331-71	IC NJM4558E(TE2)	
IC531	8-759-009-06	IC MC14052BF	
IC561	8-759-262-37	IC TA2050F(EL)	
IC581	8-759-385-17	IC NJM4580E(TE2)	
IC721	8-759-331-71	IC NJM4558E(TE2)	
IC771	8-759-331-71	IC NJM4558E(TE2)	
IC791	8-759-385-17	IC NJM4580E(TE2)	
IC801	8-759-567-76	IC µPD78078GF-087-3BA	
IC802	8-759-070-05	IC S-50720AN-DH-S	
IC811	8-759-054-12	IC PQ09RA1	
IC821	8-759-529-09	IC L9637D	
IC841	8-759-070-05	IC S-80720AN-DH	
IC901	8-759-462-53	IC TDA8563AQ	
IC902	8-759-462-53	IC TDA8563AQ	
IC921	8-759-701-01	IC NJM2904M	
IC941	8-759-701-01	IC NJM2904M	
		< JACK >	
J101	1-779-907-11	JACK (ANTENNA)	
		< COIL >	
L101	1-410-374-11	INDUCTOR CHIP 2.7uH	
L102	1-416-108-11	COIL (HIGH-FREQUENCY) 4.7mH	
L103	1-412-055-11	INDUCTOR CHIP 3.3uH	
L120	1-412-060-11	INDUCTOR CHIP 22uH	
L130	1-414-193-41	INDUCTOR 220uH	
L140	1-412-060-11	INDUCTOR CHIP 22uH	
L171	1-414-167-11	INDUCTOR 1mH	
L201	1-412-060-11	INDUCTOR CHIP 22uH	
L210	1-412-060-11	INDUCTOR CHIP 22uH	
L801	1-412-060-11	INDUCTOR CHIP 22uH	
L901	1-411-669-41	COIL, CHOKE 1.4mH	
		< TRANSISTOR >	
Q101	8-729-027-29	TRANSISTOR DTA123JKA-T146	
Q103	8-729-027-29	TRANSISTOR DTA123JKA-T146	
Q130	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q131	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q132	8-729-106-68	TRANSISTOR 2SD1615A-GP	
Q133	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q134	8-729-900-53	TRANSISTOR DTC114EK	
Q135	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q136	8-729-807-35	TRANSISTOR 2SB1123-T	
Q137	8-729-900-53	TRANSISTOR DTC114EK	
Q140	8-729-920-21	TRANSISTOR DTC314TKH04	
Q151	8-729-931-41	TRANSISTOR FMC5	
Q152	8-729-900-53	TRANSISTOR DTC114EK	
Q161	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q171	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q172	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q181	8-729-900-53	TRANSISTOR DTC114EK	
Q231	8-729-807-35	TRANSISTOR 2SB1123-T	

MAIN

Ref. No.	Part No.	Description	Remark
Q232	8-729-900-53	TRANSISTOR DTC114EK	
Q233	8-729-807-12	TRANSISTOR 2SD1802-S	
Q236	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q237	8-729-900-53	TRANSISTOR DTC114EK	
Q251	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q252	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q253	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q254	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q450	8-729-822-84	TRANSISTOR 2SB1202FAST	
Q451	8-729-900-53	TRANSISTOR DTC114EK	
Q452	8-729-106-68	TRANSISTOR 2SD1615A-GP	
Q571	8-729-920-21	TRANSISTOR DTC314TKH04	
Q572	8-729-920-21	TRANSISTOR DTC314TKH04	
Q573	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q574	8-729-027-29	TRANSISTOR DTA123JKA-T146	
Q702	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q705	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q706	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q707	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q711	8-729-920-21	TRANSISTOR DTC314TKH04	
Q712	8-729-920-21	TRANSISTOR DTC314TKH04	
Q761	8-729-920-21	TRANSISTOR DTC314TKH04	
Q762	8-729-920-21	TRANSISTOR DTC314TKH04	
Q781	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q782	8-729-900-53	TRANSISTOR DTC114EK	
Q785	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q786	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q801	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q802	8-729-900-53	TRANSISTOR DTC114EK	
Q803	8-729-807-12	TRANSISTOR 2SD1802-S	
Q804	8-729-027-29	TRANSISTOR DTA123JKA-T146	
Q805	8-729-900-53	TRANSISTOR DTC114EK	
Q806	8-729-807-35	TRANSISTOR 2SB1123-T	
Q807	8-729-900-53	TRANSISTOR DTC114EK	
Q808	8-729-807-12	TRANSISTOR 2SD1802-S	
Q810	8-729-807-35	TRANSISTOR 2SB1123-T	
Q811	8-729-900-53	TRANSISTOR DTC114EK	
Q814	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q815	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q816	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q821	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q825	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q826	8-729-900-53	TRANSISTOR DTC114EK	
Q827	8-729-106-68	TRANSISTOR 2SD1615A-GP	
Q828	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q829	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q861	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q862	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q863	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q901	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q902	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q905	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q906	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q911	8-729-807-35	TRANSISTOR 2SB1123-T	
Q912	8-729-900-53	TRANSISTOR DTC114EK	
Q921	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q922	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q941	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q942	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q960	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q961	8-729-900-53	TRANSISTOR DTC114EK	
Q962	8-729-900-53	TRANSISTOR DTC114EK	
Q963	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q964	8-729-900-53	TRANSISTOR DTC114EK	
Q971	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q972	8-729-900-53	TRANSISTOR DTC114EK	
Q973	8-729-920-21	TRANSISTOR DTC314TKH04	
Q974	8-729-920-21	TRANSISTOR DTC314TKH04	
Q975	8-729-920-21	TRANSISTOR DTC314TKH04	
Q976	8-729-920-21	TRANSISTOR DTC314TKH04	

< RESISTOR >

R11	1-216-025-00	RES,CHIP	100	5%	1/10W
R12	1-216-025-00	RES,CHIP	100	5%	1/10W
R13	1-216-025-00	RES,CHIP	100	5%	1/10W
R14	1-216-025-00	RES,CHIP	100	5%	1/10W
R15	1-216-025-00	RES,CHIP	100	5%	1/10W
R16	1-216-025-00	RES,CHIP	100	5%	1/10W
R17	1-216-025-00	RES,CHIP	100	5%	1/10W
R18	1-216-025-00	RES,CHIP	100	5%	1/10W
R19	1-216-025-00	RES,CHIP	100	5%	1/10W
R101	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R102	1-216-049-11	RES,CHIP	1K	5%	1/10W
R103	1-216-033-00	METAL CHIP	220	5%	1/10W
R121	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R122	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R123	1-216-073-00	METAL CHIP	10K	5%	1/10W
R125	1-216-081-00	METAL CHIP	22K	5%	1/10W
R126	1-216-081-00	METAL CHIP	22K	5%	1/10W
R129	1-216-033-00	METAL CHIP	220	5%	1/10W
R130	1-216-049-11	RES,CHIP	1K	5%	1/10W
R131	1-216-049-11	RES,CHIP	1K	5%	1/10W
R132	1-216-073-00	METAL CHIP	10K	5%	1/10W
R133	1-216-144-11	RES,CHIP	5.6	5%	1/8W
R134	1-216-073-00	METAL CHIP	10K	5%	1/10W
R135	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R136	1-216-081-00	METAL CHIP	22K	5%	1/10W
R137	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R138	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R140	1-216-097-00	RES,CHIP	100K	5%	1/10W
R141	1-216-075-00	METAL CHIP	12K	5%	1/10W
R142	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R143	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R144	1-216-105-00	RES,CHIP	220K	5%	1/10W
R145	1-216-689-11	METAL CHIP	39K	0.5%	1/10W
R146	1-216-089-00	RES,CHIP	47K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R151	1-216-049-11	RES,CHIP	1K	5%	1/10W
R161	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R171	1-216-113-00	METAL CHIP	470K	5%	1/10W
R172	1-216-121-00	RES,CHIP	1M	5%	1/10W
R173	1-216-097-00	RES,CHIP	100K	5%	1/10W
R176	1-216-105-00	RES,CHIP	220K	5%	1/10W
R177	1-216-017-00	RES,CHIP	47	5%	1/10W
R178	1-216-121-00	RES,CHIP	1M	5%	1/10W
R181	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R182	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R183	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R184	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R185	1-216-097-00	RES,CHIP	100K	5%	1/10W
R186	1-216-121-00	RES,CHIP	1M	5%	1/10W
R189	1-216-025-00	RES,CHIP	100	5%	1/10W
R201	1-216-117-00	METAL CHIP	680K	5%	1/10W
R203	1-216-089-00	RES,CHIP	47K	5%	1/10W
R204	1-216-089-00	RES,CHIP	47K	5%	1/10W
R205	1-216-089-00	RES,CHIP	47K	5%	1/10W
R206	1-216-081-00	METAL CHIP	22K	5%	1/10W
R207	1-216-089-00	RES,CHIP	47K	5%	1/10W
R208	1-216-089-00	RES,CHIP	47K	5%	1/10W
R211	1-216-295-00	SHORT	0		
R226	1-216-089-00	RES,CHIP	47K	5%	1/10W
R227	1-216-089-00	RES,CHIP	47K	5%	1/10W
R228	1-216-089-00	RES,CHIP	47K	5%	1/10W
R231	1-216-073-00	METAL CHIP	10K	5%	1/10W
R232	1-216-206-00	RES,CHIP	2.2K	5%	1/8W
R236	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R237	1-216-073-00	METAL CHIP	10K	5%	1/10W
R238	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R241	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R251	1-216-097-00	RES,CHIP	100K	5%	1/10W
R252	1-216-097-00	RES,CHIP	100K	5%	1/10W
R301	1-216-025-00	RES,CHIP	100	5%	1/10W
R302	1-216-089-00	RES,CHIP	47K	5%	1/10W
R303	1-216-081-00	METAL CHIP	22K	5%	1/10W
R304	1-216-077-00	METAL CHIP	15K	5%	1/10W
R306	1-216-105-00	RES,CHIP	220K	5%	1/10W
R308	1-216-073-00	METAL CHIP	10K	5%	1/10W
R311	1-216-025-00	RES,CHIP	100	5%	1/10W
R316	1-216-105-00	RES,CHIP	220K	5%	1/10W
R401	1-216-681-11	METAL CHIP	18K	0.5%	1/10W
R402	1-216-081-00	METAL CHIP	22K	5%	1/10W
R403	1-216-085-00	METAL CHIP	33K	5%	1/10W
R404	1-216-079-00	METAL CHIP	18K	5%	1/10W
R405	1-216-097-00	RES,CHIP	100K	5%	1/10W
R406	1-216-109-00	METAL CHIP	330K	5%	1/10W
R407	1-216-109-00	METAL CHIP	330K	5%	1/10W
R410	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R411	1-216-089-00	RES,CHIP	47K	5%	1/10W
R412	1-216-089-00	RES,CHIP	47K	5%	1/10W
R414	1-216-073-00	METAL CHIP	10K	5%	1/10W
R415	1-216-073-00	METAL CHIP	10K	5%	1/10W
R416	1-216-073-00	METAL CHIP	10K	5%	1/10W
R421	1-216-089-00	RES,CHIP	47K	5%	1/10W
R422	1-216-089-00	RES,CHIP	47K	5%	1/10W
R431	1-216-031-00	METAL CHIP	180	5%	1/10W
R432	1-216-109-00	METAL CHIP	330K	5%	1/10W
R433	1-216-075-00	METAL CHIP	12K	5%	1/10W
R434	1-216-079-00	METAL CHIP	18K	5%	1/10W
R441	1-216-031-00	METAL CHIP	180	5%	1/10W
R442	1-216-109-00	METAL CHIP	330K	5%	1/10W
R443	1-216-075-00	METAL CHIP	12K	5%	1/10W
R444	1-216-079-00	METAL CHIP	18K	5%	1/10W
R450	1-216-073-00	METAL CHIP	10K	5%	1/10W
R451	1-216-206-00	RES,CHIP	2.2K	5%	1/8W
R452	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R521	1-216-049-11	RES,CHIP	1K	5%	1/10W
R522	1-216-049-11	RES,CHIP	1K	5%	1/10W
R523	1-216-073-00	METAL CHIP	10K	5%	1/10W
R524	1-216-073-00	METAL CHIP	10K	5%	1/10W
R525	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R527	1-216-073-00	METAL CHIP	10K	5%	1/10W
R528	1-216-073-00	METAL CHIP	10K	5%	1/10W
R531	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R532	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R533	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R534	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R535	1-216-049-11	RES,CHIP	1K	5%	1/10W
R536	1-216-049-11	RES,CHIP	1K	5%	1/10W
R537	1-216-081-00	METAL CHIP	22K	5%	1/10W
R538	1-216-081-00	METAL CHIP	22K	5%	1/10W
R539	1-216-081-00	METAL CHIP	22K	5%	1/10W
R561	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R562	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R563	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R564	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R565	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R566	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R572	1-216-033-00	METAL CHIP	220	5%	1/10W
R573	1-216-033-00	METAL CHIP	220	5%	1/10W
R574	1-216-081-00	METAL CHIP	22K	5%	1/10W
R575	1-216-081-00	METAL CHIP	22K	5%	1/10W
R576	1-216-033-00	METAL CHIP	220	5%	1/10W
R577	1-216-033-00	METAL CHIP	220	5%	1/10W
R578	1-216-089-00	RES,CHIP	47K	5%	1/10W
R579	1-216-089-00	RES,CHIP	47K	5%	1/10W
R580	1-216-097-00	RES,CHIP	100K	5%	1/10W
R581	1-216-079-00	METAL CHIP	18K	5%	1/10W
R582	1-216-073-00	METAL CHIP	10K	5%	1/10W
R583	1-216-049-11	RES,CHIP	1K	5%	1/10W
R584	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R585	1-216-079-00	METAL CHIP	18K	5%	1/10W
R586	1-216-073-00	METAL CHIP	10K	5%	1/10W
R587	1-216-049-11	RES,CHIP	1K	5%	1/10W

MAIN

Ref. No.	Part No.	Description			Remark
R588	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R701	1-216-049-11	RES,CHIP	1K	5%	1/10W
R704	1-216-049-11	RES,CHIP	1K	5%	1/10W
R705	1-216-073-00	METAL CHIP	10K	5%	1/10W
R706	1-216-089-00	RES,CHIP	47K	5%	1/10W
R708	1-216-073-00	METAL CHIP	10K	5%	1/10W
R712	1-216-033-00	METAL CHIP	220	5%	1/10W
R713	1-216-097-00	RES,CHIP	100K	5%	1/10W
R714	1-216-009-00	METAL CHIP	22	5%	1/10W
R715	1-216-009-00	METAL CHIP	22	5%	1/10W
R716	1-216-097-00	RES,CHIP	100K	5%	1/10W
R717	1-216-033-00	METAL CHIP	220	5%	1/10W
R721	1-216-009-00	METAL CHIP	22	5%	1/10W
R722	1-216-073-00	METAL CHIP	10K	5%	1/10W
R723	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R724	1-216-089-00	RES,CHIP	47K	5%	1/10W
R725	1-216-089-00	RES,CHIP	47K	5%	1/10W
R726	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R727	1-216-073-00	METAL CHIP	10K	5%	1/10W
R728	1-216-009-00	METAL CHIP	22	5%	1/10W
R730	1-216-049-11	RES,CHIP	1K	5%	1/10W
R731	1-216-089-00	RES,CHIP	47K	5%	1/10W
R732	1-216-105-00	RES,CHIP	220K	5%	1/10W
R733	1-216-093-00	METAL CHIP	68K	5%	1/10W
R734	1-216-073-00	METAL CHIP	10K	5%	1/10W
R751	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R752	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R753	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R754	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R762	1-216-033-00	METAL CHIP	220	5%	1/10W
R763	1-216-097-00	RES,CHIP	100K	5%	1/10W
R764	1-216-009-00	METAL CHIP	22	5%	1/10W
R765	1-216-009-00	METAL CHIP	22	5%	1/10W
R766	1-216-097-00	RES,CHIP	100K	5%	1/10W
R767	1-216-033-00	METAL CHIP	220	5%	1/10W
R771	1-216-009-00	METAL CHIP	22	5%	1/10W
R772	1-216-073-00	METAL CHIP	10K	5%	1/10W
R773	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R774	1-216-089-00	RES,CHIP	47K	5%	1/10W
R775	1-216-089-00	RES,CHIP	47K	5%	1/10W
R776	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R777	1-216-073-00	METAL CHIP	10K	5%	1/10W
R778	1-216-009-00	METAL CHIP	22	5%	1/10W
R779	1-216-073-00	METAL CHIP	10K	5%	1/10W
R780	1-216-073-00	METAL CHIP	10K	5%	1/10W
R781	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R782	1-216-085-00	METAL CHIP	33K	5%	1/10W
R783	1-216-073-00	METAL CHIP	10K	5%	1/10W
R784	1-216-077-00	METAL CHIP	15K	5%	1/10W
R785	1-216-097-00	RES,CHIP	100K	5%	1/10W
R786	1-216-105-00	RES,CHIP	220K	5%	1/10W
R787	1-216-105-00	RES,CHIP	220K	5%	1/10W
R788	1-216-105-00	RES,CHIP	220K	5%	1/10W
R789	1-216-105-00	RES,CHIP	220K	5%	1/10W
R790	1-216-073-00	METAL CHIP	10K	5%	1/10W
R791	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R793	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R794	1-216-081-00	METAL CHIP	22K	5%	1/10W
R795	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R796	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R798	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R799	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R800	1-216-295-00	SHORT	0		
R801	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R802	1-216-097-00	RES,CHIP	100K	5%	1/10W
R803	1-214-857-11	METAL	510	1%	1/2W
R804	1-216-295-00	SHORT	0		
R805	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R806	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R807	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R808	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R809	1-216-025-00	RES,CHIP	100	5%	1/10W
R810	1-216-025-00	RES,CHIP	100	5%	1/10W
R811	1-216-089-00	RES,CHIP	47K	5%	1/10W
R812	1-216-025-00	RES,CHIP	100	5%	1/10W
R814	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R815	1-216-089-00	RES,CHIP	47K	5%	1/10W
R819	1-216-089-00	RES,CHIP	47K	5%	1/10W
R821	1-216-073-00	METAL CHIP	10K	5%	1/10W
R822	1-216-073-00	METAL CHIP	10K	5%	1/10W
R823	1-216-089-00	RES,CHIP	47K	5%	1/10W
R824	1-216-097-00	RES,CHIP	100K	5%	1/10W
R825	1-216-097-00	RES,CHIP	100K	5%	1/10W
R826	1-216-089-00	RES,CHIP	47K	5%	1/10W
R827	1-216-097-00	RES,CHIP	100K	5%	1/10W
R828	1-216-097-00	RES,CHIP	100K	5%	1/10W
R829	1-216-089-00	RES,CHIP	47K	5%	1/10W
R830	1-216-089-00	RES,CHIP	47K	5%	1/10W
R831	1-216-089-00	RES,CHIP	47K	5%	1/10W
R832	1-216-089-00	RES,CHIP	47K	5%	1/10W
R834	1-216-089-00	RES,CHIP	47K	5%	1/10W
R835	1-216-089-00	RES,CHIP	47K	5%	1/10W
R836	1-216-089-00	RES,CHIP	47K	5%	1/10W
R837	1-216-089-00	RES,CHIP	47K	5%	1/10W
R838	1-216-089-00	RES,CHIP	47K	5%	1/10W
R839	1-216-089-00	RES,CHIP	47K	5%	1/10W
R840	1-216-089-00	RES,CHIP	47K	5%	1/10W
R841	1-216-025-00	RES,CHIP	100	5%	1/10W
R842	1-216-073-00	METAL CHIP	10K	5%	1/10W
R843	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R844	1-216-073-00	METAL CHIP	10K	5%	1/10W
R845	1-216-073-00	METAL CHIP	10K	5%	1/10W
R846	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R847	1-216-308-00	METAL CHIP	4.7	5%	1/10W
R848	1-216-308-00	METAL CHIP	4.7	5%	1/10W
R849	1-216-308-00	METAL CHIP	4.7	5%	1/10W

Ref. No.	Part No.	Description			Remark
R851	1-216-073-00	METAL CHIP	10K	5%	1/10W
R852	1-216-206-00	RES,CHIP	2.2K	5%	1/8W
R854	1-216-073-00	METAL CHIP	10K	5%	1/10W
R856	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R858	1-216-073-00	METAL CHIP	10K	5%	1/10W
R861	1-216-017-00	RES,CHIP	47	5%	1/10W
R862	1-216-089-00	RES,CHIP	47K	5%	1/10W
R863	1-216-089-00	RES,CHIP	47K	5%	1/10W
R864	1-216-049-11	RES,CHIP	1K	5%	1/10W
R865	1-216-081-00	METAL CHIP	22K	5%	1/10W
R866	1-216-206-00	RES,CHIP	2.2K	5%	1/8W
R867	1-216-101-00	METAL CHIP	150K	5%	1/10W
R868	1-216-089-00	RES,CHIP	47K	5%	1/10W
R869	1-216-073-00	METAL CHIP	10K	5%	1/10W
R870	1-216-089-00	RES,CHIP	47K	5%	1/10W
R871	1-216-101-00	METAL CHIP	150K	5%	1/10W
R872	1-216-089-00	RES,CHIP	47K	5%	1/10W
R873	1-216-097-00	RES,CHIP	100K	5%	1/10W
R874	1-216-081-00	METAL CHIP	22K	5%	1/10W
R875	1-216-295-00	SHORT	0		
R876	1-216-091-00	METAL CHIP	56K	5%	1/10W
R877	1-216-081-00	METAL CHIP	22K	5%	1/10W
R879	1-216-073-00	METAL CHIP	10K	5%	1/10W
R881	1-216-097-00	RES,CHIP	100K	5%	1/10W
R882	1-216-097-00	RES,CHIP	100K	5%	1/10W
R883	1-216-097-00	RES,CHIP	100K	5%	1/10W
R891	1-216-073-00	METAL CHIP	10K	5%	1/10W
R892	1-216-073-00	METAL CHIP	10K	5%	1/10W
R898	1-216-073-00	METAL CHIP	10K	5%	1/10W
R901	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R902	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R903	1-216-089-00	RES,CHIP	47K	5%	1/10W
R904	1-216-105-00	RES,CHIP	220K	5%	1/10W
R905	1-216-073-00	METAL CHIP	10K	5%	1/10W
R907	1-216-089-00	RES,CHIP	47K	5%	1/10W
R911	1-216-073-00	METAL CHIP	10K	5%	1/10W
R912	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R920	1-216-097-00	RES,CHIP	100K	5%	1/10W
R921	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R922	1-216-113-00	METAL CHIP	470K	5%	1/10W
R923	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R924	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R925	1-216-113-00	METAL CHIP	470K	5%	1/10W
R926	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R927	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R928	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R929	1-216-089-00	RES,CHIP	47K	5%	1/10W
R930	1-216-097-00	RES,CHIP	100K	5%	1/10W
R931	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R932	1-216-113-00	METAL CHIP	470K	5%	1/10W
R933	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R934	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R935	1-216-113-00	METAL CHIP	470K	5%	1/10W
R936	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R937	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R938	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R939	1-216-089-00	RES,CHIP	47K	5%	1/10W
R940	1-216-097-00	RES,CHIP	100K	5%	1/10W
R941	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R942	1-216-113-00	METAL CHIP	470K	5%	1/10W
R943	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R944	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R945	1-216-113-00	METAL CHIP	470K	5%	1/10W
R946	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R947	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R948	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R949	1-216-089-00	RES,CHIP	47K	5%	1/10W
R950	1-216-097-00	RES,CHIP	100K	5%	1/10W
R951	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R952	1-216-113-00	METAL CHIP	470K	5%	1/10W
R953	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R954	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R955	1-216-113-00	METAL CHIP	470K	5%	1/10W
R956	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R957	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R958	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R959	1-216-089-00	RES,CHIP	47K	5%	1/10W
R960	1-216-089-00	RES,CHIP	47K	5%	1/10W
R961	1-216-025-00	RES,CHIP	100	5%	1/10W
R962	1-216-073-00	METAL CHIP	10K	5%	1/10W
R963	1-216-025-00	RES,CHIP	100	5%	1/10W
R964	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R966	1-216-073-00	METAL CHIP	10K	5%	1/10W
R967	1-216-073-00	METAL CHIP	10K	5%	1/10W
R971	1-216-073-00	METAL CHIP	10K	5%	1/10W
R972	1-216-073-00	METAL CHIP	10K	5%	1/10W
R973	1-216-105-00	RES,CHIP	220K	5%	1/10W
R974	1-216-105-00	RES,CHIP	220K	5%	1/10W
R975	1-216-105-00	RES,CHIP	220K	5%	1/10W
R976	1-216-105-00	RES,CHIP	220K	5%	1/10W
R977	1-216-121-00	RES,CHIP	1M	5%	1/10W
R991	1-216-073-00	METAL CHIP	10K	5%	1/10W

< VARIABLE RESISTOR >

RV171	1-241-769-11	RES, ADJ, CARBON 470K
RV431	1-241-764-11	RES, ADJ, CARBON 10K
RV441	1-241-764-11	RES, ADJ, CARBON 10K

< THERMISTOR (POSITIVE) >

TH810	1-803-318-21	THERMISTOR, POSITIVE
TH901	3-803-320-21	THERMISTOR, POSITIVE

< TUNER >

TU101	A-3282-046-A	TUNER UNIT (TUX-012V(E))

Ref. No.	Part No.	Description			Remark
		< VIBRATOR >			
X120	1-767-858-11	VIBRATOR, CRYSTAL (7.2MHz)			
X201	1-767-854-21	VIBRATOR, CRYSTAL (8MHz)			
X202	1-579-886-21	VIBRATOR, CRYSTAL (32.768kHz)			
X210	1-767-853-21	VIBRATOR, CRYSTAL (4.332MHz)			
X801	1-767-859-21	VIBRATOR, CRYSTAL (4.915MHz)			
**********					
*	A-3313-636-A	TIM BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C301	1-126-154-11	ELECT	47uF	20%	6.3V
C302	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C303	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C304	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C305	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C306	1-126-301-11	ELECT	1uF	20%	50V
C307	1-126-301-11	ELECT	1uF	20%	50V
C308	1-163-245-11	CERAMIC CHIP	56PF	5%	50V
C309	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C310	1-126-159-11	ELECT	0.47uF	20%	50V
C311	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C312	1-126-159-11	ELECT	0.47uF	20%	50V
C313	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C314	1-126-572-11	ELECT	4.7uF	20%	35V
C315	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
		< CONNECTOR >			
CN301	1-784-661-11	PIN, CONNECTOR (PC BOARD) 10P			
CN302	1-784-662-11	PIN, CONNECTOR (PC BOARD) 6P			
		< IC >			
IC301	8-759-374-66	IC MSM6688GS-2K			
IC302	8-759-448-87	IC MSM6684JSDR1			
IC303	8-759-066-00	IC LA2000M			
		< COIL >			
L301	1-412-060-11	INDUCTOR CHIP	22uH		
		< RESISTOR >			
R301	1-216-105-00	RES,CHIP	220K	5%	1/10W
R302	1-216-093-00	METAL CHIP	68K	5%	1/10W
R303	1-216-073-00	METAL CHIP	10K	5%	1/10W
R304	1-216-081-00	METAL CHIP	22K	5%	1/10W
R305	1-216-097-00	RES,CHIP	100K	5%	1/10W
R306	1-216-089-00	RES,CHIP	47K	5%	1/10W
R307	1-216-089-00	RES,CHIP	47K	5%	1/10W
R308	1-216-109-00	METAL CHIP	330K	5%	1/10W
R309	1-216-089-00	RES,CHIP	47K	5%	1/10W
R312	1-216-089-00	RES,CHIP	47K	5%	1/10W

Ref. No.	Part No.	Description	Remark
		< VIBRATOR >	
X301	1-767-305-21	VIBRATOR, CERAMIC (4.195MHz)	
**********			
		MISCELLANEOUS	
		**********	
8	1-784-436-11	CONTACT, RUBBER	
9	1-784-437-11	CONTACT, RUBBER	
F701	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
LCD1	1-803-073-11	DISPLAY PANEL, LIQUID CRYSTAL	
**********			
		**********	
		HARDWARE LIST	
		**********	
#1	7-685-105-19	TPG +P 2X8, TYPE 2, NON-SLIT	
#2	7-682-948-01	SCREW +PSW 3X8	
#3	7-685-792-09	SCREW +PTT 2.6X6 (S)	

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